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SEMI-ANNUAL PROGRESS REPORT NUMBER 12

(Operating Period January 1, 2001 through June 30, 2001)

Prepared For:
Non-City RD/RA Settlers
Wayne Reclamation and Recycling, Inc. Wayne Waste Oil Site
Columbia City, Indiana

Prepared By:

Montgomery Watson Harza
41551 Eleven Mile Road
Novi, Michigan 48375

September 2001

EPA Region 5 Records Ctr.



268214



MONTGOMERY WATSON

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LIST OF ACRONYMS

AST	above ground storage tank
ECAO	Environmental Criteria Assessment Office
ft	feet
gpd	gallons per day
gpm	gallons per minute
HEAST	Health Assessment Summary Tables
HDPE	high density polyethylene
InSite	InSite, Incorporated
IDEM	Indiana Department of Environmental Management
IRIS	Integrated Risk Information System
ISC-LT	Industrial Source Complex-Long Term
lb	pound
MWH	Montgomery Watson Harza
O&M	Operation and Maintenance
OM&M Plan	Operation, Monitoring, and Maintenance Plan
POTW	Publicly Owned Treatment Works
PRGs	Preliminary Remediation Goals
psi	pounds per square inch
RD/RA	Remedial Design/Remedial Action
RW	recovery well
scfm	standard cubic feet per minute
SE	southeast
SVE	soil vapor extraction
U.S. EPA	United States Environmental Protection Agency
VOCs	volatile organic compounds
Weston	Roy F. Weston
WRR	Wayne Reclamation and Recycling

1.0 INTRODUCTION

This document is submitted on behalf of the Non-City Remedial Design/Remedial Action (RD/RA) Settlors and is intended to summarize operations of the remediation system constructed by the Non-City RD/RA Settlors at the Wayne Reclamation & Recycling (WRR) site (a.k.a., the Wayne Waste Oil Site) in Columbia City, Indiana during the reporting period of January 1, 2001 through June 30, 2001. Included in this document is a description of the system optimization and testing activities that have occurred during the reporting period, as well as the on-going evaluation of the remediation system performance. This document is organized as follows:

- *Section 2 Monitoring and Optimization Testing*
- *Section 3 Soil Vapor Extraction System*
- *Section 4 Air Sparging System*
- *Section 5 Groundwater Extraction System*
- *Section 6 Off-Gas Treatment System*
- *Section 7 Groundwater Pre-Treatment System*
- *Section 8 Conclusions/Recommendations*

This document is intended to supplement information presented in previous Semi-Annual Progress Reports.

1.1 BACKGROUND

Construction of the remediation system at the WRR site took place from June 1994 through January 1995. The remediation system was constructed to remove volatile organic compounds (VOCs) from site soils and groundwater. The system includes:

- A 2,400 standard cubic feet per minute (scfm) soil vapor extraction (SVE) system and a 100 scfm air sparging system (nominal rates);

- A 150 gallon per minute (gpm) design capacity groundwater extraction system, including a 1,600-foot (ft) long soil-bentonite cut-off wall (i.e., slurry wall);
- A 3,200 scfm off-gas treatment system, which was removed from service effective June 24, 1999; and
- A groundwater treatment system, including a 5,800 ft long force main to deliver treated groundwater to the Columbia City publicly owned treatment works (POTW)/wastewater treatment plant.

A site layout for the three primary components of the remediation system, including the groundwater recovery system, the SVE system, and the air sparging system, are indicated on Figures 1, 2, and 3, respectively.

A Prefinal Inspection of the remediation system was held with the United States Environmental Protection Agency (U.S. EPA) on January 27, 1995. The Final Inspection with the U.S. EPA was conducted on May 18, 1995. The system was operated in startup/shakedown mode from January 1995 through September 1995, pending approval of the *Final - Operations, Maintenance, and Monitoring Plan* (OM&M Plan) (Montgomery Watson, September 1995). U.S. EPA approval of the OM&M Plan was granted on September 27, 1995. In addition, U.S. EPA approval of the *Interim Remedial Action Report* (Montgomery Watson, August 1995) was granted on September 29, 1995.

Roy F. Weston (Weston) of Vernon Hills, Illinois (system general contractor) acted as system operator after the completion of system construction activities that occurred in September 1995 to January 31, 1998. Weston subcontracted the majority of the operation and maintenance (O&M) activities to InSite, Incorporated (InSite) of Fort Wayne, Indiana. Montgomery Watson (system designer) was responsible for collecting air and water samples in accordance with the approved OM&M Plan during Weston's operation of the system. As of February 1, 1998, Montgomery Watson replaced Weston as the system operator and retained InSite to perform the day-to-day system operation. Montgomery Watson and InSite continue to operate, maintain, monitor, and optimize system

performance. Please note, as of June 21, 2001, Montgomery Watson became Montgomery Watson Harza (MWH).

Additional information on the remediation system can be found in the following reports:

- *Final Design Evaluation* (Warzyn, November 19, 1993);
- *Interim Remedial Action Report* (Montgomery Watson, August 1995);
- *Final - Operations, Maintenance, and Monitoring Plan* (Montgomery Watson, September 1995) and Addendum (Montgomery Watson, July 1999).
- *Final - Operations and Maintenance Quality Assurance Project Plan (QAPjP)* (Montgomery Watson, September 1995) and Addendum (Montgomery Watson, July 1999).
- *Technical Memorandum Number One* (Montgomery Watson, February 12, 1996);
- *Technical Memorandum Number Two* (Montgomery Watson, November 1996);
- *Semi-Annual Progress Report Number 3* (Montgomery Watson, August 1997);
- *Semi-Annual Progress Report Number 4* (Montgomery Watson, November 1997);
- *Semi-Annual Progress Report Number 5* (Montgomery Watson, April 1998);
- *Semi-Annual Progress Report Number 6* (Montgomery Watson, September 1998);
- *Semi-Annual Progress Report Number 7* (Montgomery Watson, March 1999);
- *Semi-Annual Progress Report Number 8* (Montgomery Watson, August 1999);
- *Semi-Annual Progress Report Number 9* (Montgomery Watson, March 2000);
- *Semi-Annual Progress Report Number 10* (Montgomery Watson, October 2000);
and
- *Semi-Annual Progress Report Number 11* (Montgomery Watson, March 2001).

2.0 MONITORING AND OPTIMIZATION TESTING

Initial monitoring and optimization testing of the WRR remediation system commenced in early 1995 during the startup/shakedown mode of system operations. Additional monitoring and system optimization testing has continued throughout the duration of the system operation. This monitoring and testing was conducted primarily to evaluate the performance of the remediation system in removing VOCs from site soils and groundwater, as well as to address the monitoring and testing requirements set forth in the site OM&M Plan. The monitoring, optimization testing, and associated activities conducted are discussed in the following sections.

2.1 MONITORING

The primary monitoring and associated activities conducted throughout remediation system operations are discussed below:

- Historically, air treatment system monitoring included monthly influent and effluent vapor sample collection and analysis. On June 24, 1999 the air treatment system was taken offline. As of July 1999, only the SVE system effluent (equivalent to the former air treatment system influent) is collected and analyzed on a monthly basis. Monthly samples were collected and analyzed for VOCs during this reporting period. Results of the SVE effluent sampling are used in air dispersion modeling and on-going assessment of cumulative risks for exposure to carcinogens.
- Monthly groundwater treatment system monitoring is conducted at the site, including influent and effluent groundwater sample collection and analysis. Monthly samples were collected during this reporting period for the groundwater treatment system influent and effluent. The samples were analyzed for VOCs. Additionally, samples of the groundwater treatment system effluent are collected on a periodic basis and analyzed for total metals, inorganics, and PCBs. This sampling is typically conducted during the fall semi-annual sampling event. No groundwater treatment system effluent samples were collected for metals, inorganics, or PCB analysis during this reporting

period. Results of the groundwater treatment system sampling are used to monitor groundwater treatment system efficiency, and to provide effluent quality information to the Columbia City POTW.

- Recovery well samples are collected and analyzed on a periodic basis, primarily during the fall semi-annual sampling event. No recovery well samples were collected during this reporting period. Results of the recovery well sampling are used to monitor changes in aquifer groundwater concentrations and to assess VOC mass removal rates from the aquifer.
- Semi-annual groundwater monitoring well sample collection and analysis is conducted for the site's groundwater monitoring network. Samples were collected from MW4S, MW9S, MW10S, MW14S, and MW83A(S) during this reporting period and analyzed for VOCs. Results of the groundwater monitoring well sampling are used to assess effectiveness of the remediation system operations and evaluate the progress of the site towards cleanup and attainment of remedial goals.
- Annual Columbia City municipal drinking water well sample collection and analysis, specifically for Municipal Well Number 7 and Municipal Well Number 8. These samples are typically collected during the fall semi-annual sampling event. The municipal water supply well samples are analyzed for VOCs, PCBs, metals, and inorganics. No municipal water supply well samples were collected during this reporting period.

2.2 OPTIMIZATION TESTING

The primary optimization activities which have been conducted throughout remediation system operations include:

- Semi-annual SVE well vacuum pressure and flow measurements, as appropriate, to adequately balance SVE system flowrates. Vacuum pressures and flow measurements were collected during this reporting period at the site's 56 SVE wells.
- Semi-annual SVE branch line and header line VOC measurements, as appropriate, to adequately focus treatment on those areas exhibiting the highest indicated VOC vapor concentrations. Field readings for TCE, DCE, vinyl chloride, and PID readings were recorded for the six branch lines of the SVE system. PID readings were collected for the SVE branch header line in the SE area, and for the two branch lines of the AST area SVE system.
- Semi-annual SVE monitoring point vacuum measurements to determine any major changes in SVE radius-of-influence. Vacuum pressure measurements were collected during this reporting period at the site's 23 SVE monitoring points.
- Semi-annual air sparge well air injection pressure and flowrate checks are conducted to determine any major changes in the ability to inject air into the upper and lower regions of the saturated zone in the southeast (SE) area. Air injection pressures and flowrates were recorded during this reporting period for the site's 40 air sparging wells.
- Semi-annual dissolved oxygen level checks in the monitoring wells and groundwater recovery wells located within the boundary of the slurry wall where air sparging is conducted. Dissolved oxygen measurements were collected at five groundwater monitoring well locations and at six recovery well locations during this reporting period.

- Monthly groundwater elevation measurements are collected for determination of groundwater remediation system capture zones and vertical gradient assessment in the SE area. Monthly groundwater elevation readings were collected during this reporting period at the site's groundwater monitoring wells and piezometers.

The results of the above monitoring and system optimization activities are discussed in the following sections of this report.

2.3 DATA VALIDATION SUMMARY

Following is a summary of the data validation assessment for the analysis of groundwater samples collected during this reporting period. Five water samples and one trip blank were collected from the Wayne Reclamation site in Columbia City, Indiana, on April 19, 2001. The samples were analyzed by Test America Laboratories, Inc., Indianapolis, Indiana, for the following parameters: volatile organic compounds (VOCs) by U.S. EPA method SW-846 8260B, cyanide by U.S. EPA method SW-846 9012A, and arsenic, barium, cadmium, chromium, lead, nickel, and zinc by U.S. EPA method SW-846 6010B.

Analytical results were evaluated in accordance with the data quality objective Level III, as defined in the Final Operation and Maintenance Quality Assurance Project Plan (Montgomery Watson, September 1995). The analytical data were validated and qualified based on the results of the data evaluation parameters and/or the quality control (QC) sample results provided by the laboratory. Raw data was not reviewed. The following summarizes the review of the analytical data that did not meet the quality control criteria.

The initial calibration verification (ICV) associated with the VOC analysis of all samples indicated relative standard deviations (RSDs) above 30 percent for methylene chloride, 2-chloroethyl vinyl ether, and 1,2-dibromo-3-chloropropane. The samples were flagged "J" as estimated for these analytes.

The continuing calibration verification (CCV) associated with the VOC analysis of sample MW-83AS indicated percent differences outside the acceptance criteria with a high bias for

1,2,3-trichloropropene and trans-1,4-dichloro-2-butene. Since these reflect a high bias and the compounds were not detected in the associated sample, flags were not issued for these compounds.

Based on the results of this data validation, all data are considered valid and complete as qualified.

3.0 SOIL VAPOR EXTRACTION SYSTEM

3.1 SYSTEM DESCRIPTION

The SVE system was constructed to remove VOCs from the vadose (unsaturated) zone. The system consists of 41 SVE wells in the SE area and 15 SVE wells in the aboveground storage tank (AST) area (Figure 2). VOCs are removed from the vadose zone via vacuum blowers housed in the on-site treatment building. Extracted vapors are routed from the SVE wells to the on-site treatment system through underground high density polyethylene (HDPE) piping. Each SVE well is equipped with a shut-off valve and air velocity measurement port/vapor sample tap.

In the Southeast (SE) area of the site, the SVE wells are grouped together into one of six branch lines. Approximately six to eight SVE wells are attached to each branch line. As shown on Figure 2, the six branch lines are designated Branches A, B, C, D, E, and F. The six branch lines connect to one main trunk line that conveys extracted vapors to the treatment building. Operation of individual SVE wells is controlled manually by a shut-off valve located at each well. Operation of groups of SVE wells is controlled manually by a valve at the head of each branch line.

In the AST area, each SVE well is connected via underground piping to one of two branch lines that convey extracted vapors to the treatment building. As shown on Figure 2, these branch lines are designated Branch G and Branch H. Operation of Branch G and Branch H is controlled by automatic control valves located in the treatment building.

In both the SE area and the AST area, cycling of the SVE branch lines began on May 1, 1998. The purpose of this cycling is to improve system operations by avoiding the formation of long-term preferred vapor flowpaths, thereby maximizing VOC removal.

During current cycling procedures, three of the six branch lines are operated at a time. The set of three branch lines operating is rotated approximately once per week. Proposed modifications to the cycling procedures are expected to be implemented during the next

reporting period. Under the proposed system operation, the SE area will operate two branch lines at a time (two lines on, four lines off), with cycling of operation occurring approximately every week. The AST area will alternate operation of the Branch G and Branch H lines (one line on, one line off), with cycling of operation occurring approximately every week.

Pressure probes are located throughout the SE and AST areas. These pressure probes provide monitoring points where vacuums exhibited in the vadose zone can be measured to evaluate the SVE system radius-of-influence. Several of the pressure probe locations are nested (i.e., both a shallow and a deep probe exist at the nested locations). In addition, monitoring wells screened at least partially in the vadose zone can also function as SVE vacuum monitoring points.

3.2 MONITORING AND OPTIMIZATION TESTING RESULTS

Results of the SVE system monitoring and optimization testing, which was conducted during the reporting period, indicate:

- During the period from January 2001 through June 2001, the SVE system was operational for approximately 97.4% of the time (i.e., % of total hours available). Downtime events were primarily related to standard regularly scheduled operation and maintenance activities and occasional power outages.
- Vacuum pressures recorded from the SE area SVE wells in April 2001 ranged from 5.0 to approximately 20 inches of water column. Vacuum pressures recorded at the SVE wells in the AST area ranged from 11 to approximately 17 inches of water column. Vacuum pressure readings for Branch H in the AST area were not collected due to accumulated water in the extraction lines. Following observation of water in the extraction lines, the system was adjusted to effect evacuation of the water from the extraction lines. Once completed, the system was returned to normal operation, and no follow-up vacuum pressure readings were collected. Vacuum measurements are summarized in Table 1.

- The flow rates recorded in April 2001 at the SVE wells ranged from approximately 10 to 80 cubic feet per minute (cfm) from the SE area wells, and approximately 10 to 20 cfm from the AST area wells. The total flow rate from SVE wells in the SE area was approximately 1,600 cfm. The total flow rate from SVE wells in the AST area was approximately 224 cfm. Flow rate measurements collected during April 2001 are summarized in Table 1.
- Vacuum pressures measured at the SE area monitoring points (other than SVE wells) during April 2001 ranged from 0 to approximately 1.20 inches of water column. Vacuum measurements collected in the SE area continue to indicate the SVE system is either meeting or exceeding design expectations. Vacuum pressures measured at monitoring points (other than SVE wells) in the AST area ranged from 0 to approximately 0.30 inches of water column. Vacuum measurements in the monitoring points collected during April 2001 are summarized in Table 2.
- As of April 2001, the greatest SVE VOC concentrations were noted from Branch C in the SE area. Vapor concentrations have changed over time as more VOC mass is removed from the site soils and groundwater. Future treatment system operations will continue to focus on optimizing this removal. Relative to the AST area, the SE area continues to contribute the majority of the VOCs to the treatment system. For the SE area, PID and colorimetric tube measurements collected during April 2001 are summarized in Table 3. Laboratory analytical/Summa canister data collected in April 2001 is summarized on Table 6.

3.3 PROGRESS TOWARDS REMEDIAL OBJECTIVES

Based on analytical results of SVE system effluent air samples collected through April 2001, it is estimated that approximately 10,892 pounds (lb) of VOCs have been removed via the SVE system from site vadose zone soils. Initial mass removal rates observed at the commencement of SVE system operations were approximately 83 lb total VOCs per day. As of June 2001, removal rates for the SVE system were approximately 3.0 lb total VOCs per day or approximately 3.4% of initial removal rates. Based on June 2001 VOC data, the

SVE system effluent stream concentrations have decreased approximately 96.6% from the initial concentration of 82,850 ppb at system startup to the most recent sampling event in June 2001 of 2,791 ppb. This decrease in influent VOC concentrations can be noted on Figure 5 and Figure 6, which represents a summary of air treatment system influent and effluent data, respectively.

The primary objective of the SVE system operation is to remove VOCs from site soils in order to attain vadose zone soil preliminary remediation goals (PRGs), or alternative cleanup levels, as indicated in the OM&M Plan. For example, soil PRGs for the SE area are 37.1 ug/kg for vinyl chloride, 186.3 ug/kg for 1,2-DCE, 67.1 ug/kg for PCE, and 19.7 ug/kg for TCE. Confirmatory soil sampling will not commence until SVE influent concentrations reach an asymptotic value.

4.0 AIR SPARGING SYSTEM

4.1 SYSTEM DESCRIPTION

The air sparging system was constructed to facilitate removal of VOCs from site soils and groundwater. The air sparging system is intended to work in combination with the SVE and groundwater systems in the removal of VOCs from the site subsurface. The system consists of 40 sparging clusters located in the SE area of the site as indicated on Figure 3. A sparging cluster is located adjacent to each SVE well. Compressed air is delivered from the sparging compressor in the treatment building to the sparging wells through High Density Polyethylene (HDPE) piping located underground.

Each sparging cluster consists of two air sparging wells (i.e., a shallow well and a deep well). The shallow/deep cluster is necessary to provide treatment of soils above and below the thin clay layer, which is located at approximately 20 to 25 ft below ground surface. The shallow air sparging well is installed such that its screen is set at the top of the thin clay layer. The deeper air sparging well is set with a screen at the base of the upper aquifer. Each well is instrumented with an air flow rotameter, ball valve, and pressure gauge.

The sparge wells are manifolded and controlled in a manner similar to the SVE system. Compressed air is supplied from the sparging compressor in the treatment building to the SE area through a two-inch HDPE line. As shown on Figure 3, branch lines A, B, C, D, E, and F leave the trunk line to feed the air sparging wells. Operation of the branch lines is controlled by a control valve at the head of each branch line.

4.2 OPTIMIZATION TESTING RESULTS

Results of the air sparging system optimization testing, which was conducted in April 2001, indicate:

- During the period of January 1, 2001 through April 27, 2001, the air sparging system was off-line due to the suspension of operation of the system, which began on November 15, 2000, and continued until April 27, 2001. The suspension of

system operation was conducted to enable evaluation of the system's performance for VOC removal. During the period of April 27, 2001 through June 30, 2001, the air sparging system was operational for approximately 97.6% of the total hours available. Downtime events during this time period were primarily related to standard regularly scheduled operation and maintenance activities and occasional power outages.

- The airflow rate to the shallow and deep sparge wells was approximately 1 cfm each. Corresponding injection pressures for the shallow wells ranged between 2 pounds per square inch (psi) and 12 psi. Corresponding injection pressures for the deeper wells ranged between 5 psi and 15 psi. Air flow and injection pressure measurements collected in April 2001 are summarized in Table 4.
- Dissolved oxygen level measurements collected in April 2001 are summarized in Table 5. Decreases in dissolved oxygen concentrations were noted in MW3S, MW10S, MW11S, MW83A(S), RW5, RW6, RW7, RW8, and RW10. This may be due in part to the decreased time the air sparging system was operational during the reporting period. Although dissolved oxygen levels are expected to increase as contaminant levels are reduced in the aquifer, the dissolved oxygen data does not directly correlate with groundwater concentrations. Generally, monitoring points impacted with VOCs will have lower dissolved oxygen levels than non-impacted monitoring points.
- As a means of measuring the contribution of VOC removal by the air sparging system, vapor samples have historically been collected from the SE area's SVE main trunk line with the air sparging system "ON" and "OFF." During the last reporting period, vapor samples were collected with the air sparging system "ON" (April 27, 2001) and "OFF" (April 23, 2001). The results for these and other historical samples are summarized in Table 6. The results for this reporting period indicated a slight increase in VOC concentrations when the air sparging system was "ON", relative to when the system was "OFF".

- In order to determine if the air sparging system continues to have a positive influence on removal of VOCs in the SE area, the air sparge system was suspended for an extended period. Following suspension on November 17, 2000 the air sparging system was successfully restarted on April 27, 2001. Samples were collected from the SVE system immediately prior to restarting the air sparge system. These samples represent the air sparge system "OFF" samples. The air sparge system was then restarted, and SVE vapor samples were collected approximately four days later. These samples represent the air sparge system "ON" samples. Based on the air sampling results collected during April 2001, a slight increase in VOC removal was noted when the air sparging system was operational, as compared to when the air sparging system was suspended.

4.3 PROGRESS TOWARDS REMEDIAL OBJECTIVES

The primary remedial objective of the air sparging system is for the removal of dissolved-phase VOCs from the saturated zone in the SE area of the site, located within the confines of the barrier wall. VOC removal is measured using a PID, colorimetric tubes, and Summa Canisters. Results of the field measurements for air quality are presented in Table 3. Analytical results for the air samples collected via Summa Canisters are presented in Table 6. Testing results collected to date suggest that the air sparging system is supporting the remedial objective. In general, monitoring wells in the SE area have shown significant reductions in VOC concentrations since commencement of remediation system operations.

A historical representation of the concentration of total VOCs, as recorded during Summa Canister sampling, is provided in Figure 10. The graph depicts the effect of the air sparge system on VOC removal. Samples are collected with the air sparge system operating, and then a short time later with the air sparge system suspended. Review of the sample results indicates that the air sparge system's impact on VOC removal has greatly declined since system start-up.

Under current operating procedures, the air sparging system functions under a pulsed mode, which consists of operating three of the six branch lines at a time (three lines on, three lines off). The three branch lines are rotated into service approximately once every week. Additionally, during operation of the three selected branch lines, the air injection is cycled approximately every four hours (i.e., air is injected for four hours and then turned off for four hours, then the cycle is repeated).

Proposed modifications to the air sparging cycling procedures are expected to be implemented during the next reporting period. Under the proposed system operation, the SE area will operate two branch lines at a time (two lines on, four lines off), in conjunction with the corresponding SVE lines. Cycling of the operation is expected to occur approximately every week. Additionally, operation of the deep air sparge wells will be suspended, with the system distributing injected air only to the shallow wells. The purpose of the proposed modification is to continue to assess the effectiveness of the air sparging system for VOC removal, and to evaluate optimal operation of the sparging system.

Continued reductions in dissolved phase VOC concentrations have been noted at the monitoring wells located in the SE area since initiation of the treatment system (see Table 9). Fluctuations in dissolved phase VOCs have been noted in all monitoring wells and recovery wells located in the SE area. These fluctuations are likely due to the non-homogeneous nature of the saturated zone in the SE area and the differing rates of treatment likely occurring across the area.

Development of the groundwater PRGs are detailed in the *Final Operation and Maintenance Quality Assurance Project Plan* [(OM&M QAPjP), Montgomery Watson, September 1995]. The most conservative PRGs for the commonly detected constituents of concern are 0.0283 ug/l for vinyl chloride, 1.43 ug/l for PCE, 2.54 ug/l for TCE, 70 ug/l for cis-1,2-DCE, and 100 ug/l for trans-1,2-DCE.

5.0 GROUNDWATER EXTRACTION SYSTEM

5.1 SYSTEM DESCRIPTION

The groundwater extraction system was constructed to capture and control groundwater impacted with VOCs. The groundwater extraction system consists of 10 groundwater recovery wells installed in three areas of the site as follows: three recovery wells in the AST area (RW1-3), one recovery well in the monitoring well MW7S area (RW4), and six recovery wells in the SE area (RW5-10), see Figure 1. The extraction system also employs the use of a soil bentonite cut-off wall (i.e., slurry wall), constructed to reduce the pumping rate necessary to produce an upward vertical gradient component to the groundwater flow in the SE area. Extracted groundwater is pumped to the on-site treatment building through underground HDPE piping.

5.2 MONITORING AND OPTIMIZATION TESTING RESULTS

Results of the groundwater extraction system monitoring and optimization testing, which was conducted during the reporting period, indicate:

- During the period of January 2001 through June 2001, the groundwater extraction system was operational for approximately 97.4% of the time (i.e., % of total hours available). Primary downtime events were related to on-going routine cleaning of individual recovery pumps and underground collection piping, occasional power outages, and requests from the Columbia City WWTP to temporarily cease discharging treated groundwater.
- The maximum sustained groundwater recovery rate, for periods of at least 24 hours, during the reporting period was approximately 76 gpm in February 2001 (i.e., 109,000 gallons per day (gpd)). During the reporting period, a total of 14,310,000 gallons of groundwater were recovered. The largest total monthly flow was reported at 2,932,000, for the month of March 2001. The highest average daily recovery rate during the reporting period was 109,000 gpd, which was reported during the month of February 2001. The greatest average daily flow

was calculated to be 103,750 gpd, also for the month of February 2001. This average was calculated by dividing the total monthly flow by the total number of operational days for the month. Continued cleaning of recovery well pump assemblies and groundwater collection piping has enabled system groundwater recovery rates to maintain an inward and vertically upward gradient in the SE area. A summary of system flowrates is included in Table 7. Included as Figure 11 is a comparison of cumulative versus the average daily groundwater recovery rates. As of June 30, 2001 a cumulative total of 131,691,200 gallons of groundwater had been recovered, treated, and discharged to the Columbia City POTW.

- Capture of site groundwater (as measured by drawdown in site monitoring wells) is being achieved across the site. Water level elevation data collected during the reporting period is used to evaluate the groundwater table drawdown. This data is included in Table 8. Groundwater contour maps that show representations of the water elevations observed in the SE area during each month of the reporting period have been prepared as Figure 4-1 through Figure 4-6.
- Sample results from the annual sampling of the Columbia City municipal drinking water wells located to the north of the WRR site can be found in Table 15 and Table 16. No samples were collected from the municipal drinking water wells during this reporting period. Historical data indicates that no detectable concentrations of constituents attributable to the WRR site have been detected in the municipal wells.

5.3 PROGRESS TOWARDS REMEDIAL OBJECTIVES

The primary remedial objectives of the groundwater extraction system are to remove dissolved phase contamination from the saturated zone and maintain hydraulic control within the upper aquifer on site, thereby preventing the potential off-site migration of dissolved phase constituents to the Blue River or Columbia City municipal well field.

Mass removal rates from the groundwater extraction system have ranged from approximately 1.03 to 1.71 lbs. of VOCs removed per day during the reporting period.

Groundwater elevation data indicates that the slurry wall/groundwater extraction system is effectively maintaining an inward gradient in the SE area. Monthly water elevations collected during the January 2001 through June 2001 reporting period indicate a consistent inward gradient in the SE area. For example, the April 2001 elevations within the confines of the slurry wall are approximately 2 feet lower than water elevations immediately outside the slurry wall (see Table 8 and Figure 4-4).

Pre-pumping water level elevations in MW83AS and MW83AD, located within the confines of the slurry wall, suggest a downward vertical gradient. Upon startup of remediation system pumping in 1995, water level data indicate a shift in this position with an upward vertical gradient indicated between MW83AS and MW83AD. Data collected during January 2001 through June 2001 indicate that an upward gradient was maintained in the SE area throughout the reporting period, with the exception of May 2001, which indicates a slight downward gradient. Operation and maintenance activities, including on-going recovery pump and groundwater collection pipe cleaning, have helped increase groundwater system recovery rates to maintain an upward vertical gradient in the SE area. Based on the historical observations of groundwater extraction system performance, maintenance of the groundwater extraction system will be conducted frequently (i.e., approximately once per quarter) in order to maintain hydraulic control.

An evaluation of monitoring well analytical data collected to date generally shows decreasing concentrations of VOCs. Total VOC concentrations have generally decreased relative to historic observations in the majority of all monitoring wells located in the SE area, with an average VOC reduction of approximately 87%. The monitoring wells currently included in the semi-annual or annual sampling program, per the requirements of the OM&M QAPjP, are MW1D, MW3S, MW4S, MW7S, MW9S, MW10S, MW11S, MW14S, MW15S, MW16S, MW83AS, MW83AD, and MW83B. A summary of

monitoring well VOC and metals analytical data collected to date is included in Table 9. Copies of laboratory analytical reports are available upon request.

Declines in historical VOC concentrations are noted in MW3S, MW4S, MW7S, MW10S, MW14S, MW15S, MW83AS, and MW83AD. Fluctuations are noted in MW9S, MW11S, and MW16S. Monitoring wells MW1D and MW83B have remained essentially unchanged. Results from the annual sampling event and the semi-annual sampling event are compared to existing data to assess indicated trends or fluctuations. Analytical results, from the sampling of MW83B located in the far northeast corner of the site, indicate that there have been no groundwater impacts in this area attributable to the WRR site.

A summary of historic recovery well VOC analytical data is included in Table 10. The most highly impacted recovery wells are located within the confines of the slurry wall (RW8, RW9, and RW10). Relatively large fluctuations (both increases and decreases) in VOC concentrations have been noted in most of the recovery wells.

Recovery well performance observations to date indicate that RW1, RW2, RW7, and RW9 generally produce the least amount of water and cycle on and off as water levels rise and fall. RW3, RW4, RW5, RW6, RW8, and RW10 generally operate in a steady-state mode, pumping groundwater continuously. The current recovery well system is not equipped to measure flows from each individual recovery well. Therefore, a flow assessment will be conducted during the fall 2001 sampling event to evaluate recovered groundwater flow from each recovery well and to optimize system performance. Effluent samples will also be collected from each recovery well during the fall 2001 sampling event. The samples will be analyzed for VOCs.

On-going routine operation and maintenance activities are focused on recovery well pump cleaning/repair and/or replacement, and recovery pipe cleaning as necessary to optimize groundwater remediation system performance and meet remedial objectives. Flow increases have been noted in all recovery wells after cleaning of recovery well pump assemblies and discharge lines.

6.0 OFF-GAS TREATMENT SYSTEM

6.1 SYSTEM DESCRIPTION

The off-gas treatment system was constructed and operated to remove VOCs from the off-gases of the air stripping tower and the SVE system prior to discharge to the atmosphere. On June 24, 1999, air treatment was discontinued; however, monthly air sampling continues to be conducted on the effluent air stream as a means of monitoring potential risk levels associated with the untreated air stream. Upon entering the treatment building, the combined air stream of the air stripping tower and the SVE system is drawn through an air filter and moisture separator by two 100-horsepower, multistage, centrifugal blowers connected in parallel. After exiting the blowers, the untreated air stream passes through a heat exchanger prior to discharge to the atmosphere.

6.2 MONITORING AND OPTIMIZATION TESTING RESULTS

Monitoring and optimization testing including the monthly SVE system effluent sampling conducted to date indicate:

- Monthly SVE system concentrations have decreased by more than one order of magnitude from the beginning of system operations in early 1995 to June 2001. Total VOCs in the air stream have dropped from approximately 83,300 parts per billion (ppb) volume/volume basis (v/v) in March 1995 to 2,791 ppb (v/v) in June 2001. During the same time period, vinyl chloride concentrations have decreased from approximately 1,900 ppb (v/v) to 210 ppb (v/v), TCE concentrations have decreased from 28,000 ppb (v/v) to 430 ppb (v/v), and cis-1,2-DCE concentrations have decreased from approximately 40,000 ppb (v/v) to 1,400 ppb (v/v). The historic monthly air treatment system influent and effluent sampling results are summarized on Table 11 and on Figures 5 and 6. Table 11 and 12 also include the monthly effluent-only sample results collected since the air treatment system was discontinued on June 24, 1999.

- VOC concentrations have historically been modeled to assess air quality at the site boundary to compare associated hypothetical risks with and without treatment from the formerly used PADRE air treatment system. Results for both the influent and effluent values indicate hypothetical risk levels to be generally below the cumulative risk action level of 1×10^{-6} since the commencement of system operations. Included in Table 11 and Table 12 are summaries of these air risk calculations. As noted, effluent air sampling conducted since discontinuation of air treatment on June 24, 1999 indicates the 1×10^{-6} action level has not been exceeded.

6.3 PROGRESS TOWARDS REMEDIAL OBJECTIVES

The primary objective of the continued on-going SVE system effluent monitoring is to ensure that the cumulative life-time cancer risk at the site boundary remains under the cumulative risk action level of 1×10^{-6} . In order to meet this objective, air dispersion modeling was performed to determine the maximum concentrations at receptor locations outside the boundary of the WRR site. The Industrial Source Complex - Long-Term (ISC-LT) model was used for the purpose of modeling the dispersion of the influent and the effluent from the soil remediation system, based on the conservative assumption that the system was operating for 24 hours a day, 365 days a year.

The maximum concentrations determined by the air modeling study were multiplied by unit risk factors to estimate the excess carcinogenic risk posed by the hypothetical emissions through the inhalation route. The unit risk factors used in this study were developed from toxicity values included in U.S.EPA's Integrated Risk Information System (IRIS), U.S.EPA's "Health Assessment Summary Tables" (HEAST, Annual FY-1995), and information provided by the U.S.EPA Environmental Criteria Assessment Office (ECAO). The unit risk factors conservatively assume a chronic exposure to the chemicals for 24 hours a day, 365 days a year, for a 70-year lifetime. A summary of air dispersion modeling and cumulative cancer risk estimates is provided in Appendix A. (In this report, references to cancer risk and cancer risk estimates refer to the estimated potential risks as indicated by the use of ISC-LT air dispersion modeling and are not meant to represent or suggest actual risks.)

Air dispersion modeling conducted on the air treatment system effluent data indicates that no exceedences of the 1×10^{-6} action level occurred during this reporting period. In the past, slight exceedences of the 1×10^{-6} action level were modeled for in the March 1995, November 1995, July 1996, and September 1997 data for effluent samples. Exceedances were also noted in the March 1995, November 1995, May 1996, June 1996, July 1996, May 1997, April 1998, and February 1999 data for influent samples.

The air dispersion modeling conducted on the influent samples hypothetically assumed no treatment would be conducted on the air stream. The slight exceedence noted in the effluent concentrations for the months modeled has been intermittent and may be an anomaly. In any event, the slight exceedances are considered to represent a hypothetical risk as the calculations, for example, assume a continuous 70-year exposure to the concentrations measured in a given month.

Though active air treatment was discontinued on June 24, 1999, monthly effluent air sampling and risk assessment will continue to be conducted. Air treatment will be reactivated should the results from two consecutive monthly air samples indicate cumulative risks in excess of 1×10^{-6} .

Overall remediation system mass removal calculations indicate that, since inception of treatment system operations, approximately 12,022 lb of total VOCs have been removed by the SVE and groundwater treatment systems. Of this, approximately 91% (or 10,892 lb) is attributed to operation of the SVE and air sparge systems, and approximately 9% (or 1,130 lb) is attributed to the groundwater extraction system. Additionally, initial contaminant mass removal rates from the entire remediation system were approximately 88 lb total VOCs per day during the startup phase of system operations. This removal rate has decreased to approximately 3.0 lb total VOCs per day, as of June 2001. Figure 8 represents a summary of overall site VOC removal rates and Figure 9 represents a summary of total VOCs removed from the site.

7.0 GROUNDWATER PRE-TREATMENT SYSTEM

7.1 SYSTEM DESCRIPTION

The groundwater pre-treatment system is designed to remove VOCs from extracted groundwater, prior to the effluent being discharged to the Columbia City POTW. Groundwater extracted from the site's ten groundwater recovery wells (RW1 through RW10) is initially pumped to an influent storage tank for solids settling and equalization. The untreated water is transferred from the influent storage tank through a bag filter to the top of an air stripping tower via electric transfer pumps. Water flows by gravity downward through the tower packing, while air flows upward through the tower, stripping the VOCs from the groundwater. The treated water drains from the tower into an effluent sump. Treated groundwater from the effluent sump is pumped via a dedicated forcemain to the Columbia City POTW.

7.2 MONITORING AND OPTIMIZATION TESTING RESULTS

During the period of January 2001 through June 2001, the groundwater pretreatment system was operational for 97.4% of the time (i.e., % of total hours of available). The primary downtime occurrences were related to standard operation and maintenance activities and occasional power outages.

Monthly treatment system influent and effluent analytical results for groundwater entering and exiting the air stripping tower are summarized in Table 13. In addition, Figure 7 includes a summary of historical influent VOC data. The air stripping tower has consistently removed VOCs prior to discharge to the Columbia City POTW. Total VOC concentrations in the influent of the air stripping tower have fluctuated from 416 ug/l to 3,274 ug/l since commencement of treatment system operations. Influent groundwater VOC concentrations can vary over time based on a variety of factors including recovery well cycling, rainfall events, and site water levels. The influent groundwater VOC concentrations during this reporting period began at 2,555 ug/L (January 2001) and ended at 1,886 ug/L (June 2001). The average total VOC concentration for the influent during the reporting period was 2,099 ug/L. Average groundwater contaminant mass removal rates

since the commencement of remediation system operations have ranged from approximately 1.25 lb/day to 13.2 lb/day of total VOCs. The most recent system data, collected from June 2001, indicates that the groundwater contaminant mass removal rate is approximately 1.03 lb total VOCs per day, based on an average flow rate of 65,633 gpd and a total VOC concentration in the plant influent of 1,886 ug/L.

7.3 PROGRESS TOWARDS REMEDIAL OBJECTIVES

Results of the groundwater treatment system monthly effluent sampling conducted in accordance with the discharge agreement (i.e., the agreement in place prior to February 1, 1998) with the Columbia City POTW are included in Table 13. Analytical results generally indicate very low levels of both organic and inorganic compounds to be present in the treated groundwater discharged to the Columbia City POTW. As of February 1, 1998, monthly groundwater treatment system sampling consists of influent and effluent sampling for VOCs only per the new agreement with the Columbia City POTW. Additional non-VOC parameters are sampled for during the annual sampling event conducted in October of each year. These results can be found in Table 14. These treatment system sampling modifications were approved by the U.S.EPA and IDEM (Indiana Department of Environmental Management) (Engineering Management, Inc., December 2, 1997).

8.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of operations to date, the remediation system is effectively removing VOCs from site soils and groundwater. To date, approximately 12,022 lb of total VOCs have been removed via the soil and groundwater remediation systems. Contaminant mass removal rates have decreased to approximately 3.0 lb total VOCs per day, versus a startup removal rate of approximately 88 lb total VOCs per day. The following recommendations, unless otherwise indicated by the U.S.EPA, will be implemented to improve treatment system performance:

- Continue with the on-going standard operation and maintenance of the remediation system components to ensure maximum performance consistent with remediation system objectives.
- Continue to conduct monthly groundwater treatment system influent and effluent sampling for VOCs per the discharge agreement with the Columbia City POTW.
- Continue with the on-going recovery well cleaning, pump repair and/or replacement, and groundwater recovery pipe cleaning as needed to optimize groundwater recovery efficiency and maintain effective hydraulic control. Continue to assess the need to increase recovery pump sizes in select recovery wells.
- Conduct flow assessment for recovery wells during fall 2001 semi-annual sampling event to determine flow from individual recovery wells, in order to optimize system operation.
- Evaluate adding dedicated recovery well flow totalizers for each recovery well as a means of assessing recovery well production.
- Perform sampling of the recovery wells for assessment of VOC concentrations.

- Continue semi-annual SVE performance/optimization sampling and testing to evaluate overall mass removal rates from the respective areas of the site, including sampling respective SVE branch lines for VOCs and monitoring/adjusting air flows to optimize VOC removal.
- Continue cycling the SVE system branch lines in order to maximize VOC removal and prevent the development of preferential vapor flowpaths. Implement modifications to system operation schedule, such that two of the SE area's branch lines are operated at a time (two lines on, four lines off), with cycling of operation occurring approximately every week. Alternate operation of the SVE system's Branch G and Branch H lines (one line on, one line off), with cycling of operation occurring approximately every week.
- Continue to sample the SVE effluent vapor stream to evaluate the potential cumulative excess cancer risks associated with the untreated vapor stream.
- Evaluate increasing the air sparging system's air flow rate while continuing to operate the system in a pulsed mode for optimum removal efficiency. Implement proposed modifications to the air sparging system operation cycling procedures such that two of the SE area's branch lines are operated at a time (two lines on, four lines off), in conjunction with the corresponding SVE lines. Cycle the operation approximately every week. Suspend operation of the deep air sparge wells and continue operation of the shallow wells.
- Continue to measure dissolved oxygen levels in SE area monitoring wells and recovery wells.

The cumulative excess cancer risks of the influent vapor stream will continue to be evaluated at the site boundary using the ISC-LT impacts model. Should the SVE effluent vapor stream continue to exhibit a cumulative excess cancer risk less than the 1×10^{-6} action level, the off-gas treatment system will remain off-line. Should two consecutive monthly

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SVE effluent vapor samples indicate a cumulative excess cancer risk of greater than 1×10^{-6} ,
the air treatment system will be restarted.

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TABLES

Table 1
Summary of Vacuum Pressures and Flow Rates from the SVE Wells
Wayne Reclamation and Recycling
Columbia City, Indiana

SVE Well	Branch	Jan-96		Feb-96		Nov-96		Dec-96		Jan-97		Jul-97		Nov-97		Apr-98		Oct-98		Apr-99		Oct-99	
		Vacuum (in H ₂ O)	Flow (cfm)																				
SOUTHEAST AREA																							
SVE 1	A	12	32	17	50	4	20-30	3	20-30	5.1	0	12	30-35	5	45-55	10	45-55	17	145-155	15	115-125	14	105-115
SVE 2	A	10	56	14	50	5	20-30	4	20-30	3.5	0	7	30-35	4	45-55	8	45-55	14	145-155	13	115-125	11	105-115
SVE 3	A	9	48	14	50	6	20-30	5	20-30	2.3	0	6	30-35	5	45-55	7	45-55	16	145-155	14	115-125	13	105-115
SVE 4	A	3	52	15	50	7	20-30	11	20-30	2.9	0	13	30-35	7	45-55	9	45-55	20	145-155	16	115-125	17	105-115
SVE 5	A	11	--	15	50	8	20-30	7	20-30	5.8	0	10	30-35	10	45-55	9	45-55	12	145-155	12	115-125	11	105-115
SVE 6	A	12	30	15	50	9	20-30	3	20-30	0.9	0	12	30-35	1	45-55	16	145-155	14	115-125	12	105-115		
SVE 7	F	5	50	11	50	7	20-30	6	20-30	16	20-30	10	25-35	6	45-55	11	20-30	17	65-75	12	40-50	10	45-55
SVE 8	F	10	---	15	50	8	20-30	7	20-30	20	20-30	13	25-35	5	45-55	13	20-30	21	65-75	15	40-50	15	45-55
SVE 9	F	8	52	16	50	9	20-30	8	20-30	20.5	20-30	11	25-35	9	45-55	12	20-30	18	65-75	16	40-50	14	45-55
SVE 10	F	8	56	14	50	10	20-30	9	20-30	21	20-30	10	25-35	9	45-55	12	20-30	19	65-75	15	40-50	14	45-55
SVE 11	F	8	60	13	50	11	20-30	10	20-30	21	20-30	6	25-35	8	45-55	11	20-30	19	65-75	14	40-50	11	45-55
SVE 12	F	9	53	13	50	12	20-30	11	20-30	23	20-30	10	25-35	10	45-55	12	20-30	20	65-75	15	40-50	16	45-55
SVE 13	B	0	--	7	50	4	20-30	2	20-30	8.8	20-30	6	25-35	2	45-55	4	50-60	6	75-85	7	75-85	5	75-85
SVE 14	B	5	--	8	50	6	20-30	3	20-30	14.1	20-30	8	25-35	4	45-55	8	50-60	9	75-85	14	75-85	8	75-85
SVE 15	B	4	50	8	50	1	20-30	1	20-30	1.5	20-30	8	25-35	5	45-55	8	50-60	10	75-85	15	75-85	7	75-85
SVE 16	B	8	60	10	50	8	20-30	5	20-30	16.5	20-30	9	25-35	4	45-55	8	50-60	9	75-85	14	75-85	9	75-85
SVE 17	B	10	--	12	50	10	20-30	6	20-30	19.5	20-30	10	25-35	9	45-55	11	50-60	6	75-85	12	75-85	14	75-85
SVE 18	B	10	--	12	50	8	20-30	7	20-30	20	20-30	10	25-35	4	45-55	11	50-60	6	75-85	18	75-85	13	75-85
SVE 19	B	10	--	12	50	9	20-30	8	20-30	20.2	20-30	12	25-35	7	45-55	12	50-60	8	75-85	22	75-85	15	75-85
SVE 20	E	0	--	8	50	1	20-30	2	20-30	15.5	20-30	9	40-45	4	15-25	7	25-35	9	25-35	20	60-70	12	60-70
SVE 21	E	7	--	10	50	3	20-30	7	20-30	17	20-30	7	40-45	5	15-25	10	25-35	6	25-35	19	60-70	12	60-70
SVE 22	E	0	--	10	50	2	20-30	3	20-30	0	20-30	0	40-45	0	15-25	10	25-35	6	25-35	22	60-70	14	60-70
SVE 23	E	6	55	3	50	4	20-30	6	20-30	18	20-30	10	40-45	8	15-25	4	25-35	6	25-35	21	60-70	15	60-70
SVE 24	E	5	--	10	50	2	20-30	6	20-30	17.5	20-30	10	40-45	5	15-25	10	25-35	6	25-35	22	60-70	14	60-70
SVE 25	E	3	50	6	50	1	20-30	7	20-30	10.5	20-30	4	40-45	4	15-25	5	25-35	4	25-35	8	60-70	5	60-70
SVE 26	E	6	--	9	50	1	20-30	7	20-30	15	20-30	6	40-45	5	15-25	8	25-35	6	25-35	12	60-70	12	60-70
SVE 27	C	6	54	9	50	3	20-30	5	20-30	14.5	20-30	7	40-45	4	25-35	8	20-30	7	40-50	15	55-65	10	55-65
SVE 28	C	8	50	10	50	4	20-30	5	20-30	16	20-30	8	40-45	5	15-25	8	20-30	6	40-50	18	55-65	12	55-65
SVE 29	C	4	51	6	50	5	20-30	6	20-30	8.9	20-30	4	40-45	4	25-35	6	20-30	4	40-50	12	55-65	8	55-65
SVE 30	C	7	55	9	50	6	20-30	7	20-30	15.9	20-30	8	40-45	6	25-35	*	20-30	4	40-50	21	55-65	12	55-65
SVE 31	C	8	--	9	50	7	20-30	8	20-30	17	20-30	9	40-45	5	25-35	10	20-30	10	40-50	24	55-65	14	55-65
SVE 32	C	8	55	12	50	8	20-30	8	20-30	22.5	20-30	9	40-45	9	25-35	12	20-30	12	40-50	28	55-65	22	55-65
SVE 33	C	10	--	12	50	7	20-30	8	20-30	19.9	20-30	7	40-45	6	25-35	11	20-30	11	40-50	17	55-65	18	55-65
SVE 34	D	8	50	10	50	3	20-30	4	20-30	20	20-30	7	20-30	8	15-25	7	10-20	12	20-30	19	30-40	20	20-30
SVE 35	D	10	45	12	50	3	20-30	4	20-30	21	20-30	10	20-30	9	15-25	12	10-20	13	20-30	20	30-40	20	20-30
SVE 36	D	11	50	12	50	3	20-30	5	20-30	22.5	20-30	11	20-30	6	15-25	12	10-20	13	20-30	20	30-40	21	20-30
SVE 37	D	12	--	13	50	4	20-30	5	20-30	17.5	20-30	13	20-30	9	15-25	13	10-20	17	20-30	23	30-40	22	20-30
SVE 38	D	10	--	12	50	5	20-30	8	20-30	22	20-30	11	20-30	10	15-25	12	10-20	10	20-30	30	30-40	18	20-30
SVE 39	D	9	50	11	50	6	20-30	6	20-30	22	20-30	10	20-30	5	15-25	7	10-20	10	20-30	20	30-40	16	20-30
SVE 40S	D	12	55	13	50	7	20-30	7	20-30	23	20-30	12	20-30	6	15-25	13	10-20	15	20-30	22	30-40	22	20-30
SVE 40D	D	12	40	13	50	7	20-30	7	20-30	22	20-30	7	20-30	5	15-25	11	10-20	13	20-30	20	30-40	22	20-30
AST AREA																							
SVE 41	G	2	--	--	20-30	4	20-30	--	20-30	3.5	20-30	3	15-25	4	10-20	4	10-20	4	15-25	6	10-20	3	20-30
SVE 42	G	6	30	--	20-30	5	20-30	--	20-30	6.5	20-30	4	15-25	8	10-20	9	15-25	10	10-20	8	20-30		
SVE 43	G	8	40	--	20-30	8	20-30	--	20-30	11	20-30	10	15-25	7	10-20	6	15-25	14	10-20	12	20-30		
SVE 44	H	8	--	--	20-30	7	20-30	--	20-30	7.9	20-30	11	15-25	10	10-20	9	15-25	11	10-20	13	20-30		
SVE 45	H	7	--	--	20-30	7	20-30	--	20-30	4	20-30	3	15-25	3	10-20	2	10-20	2	15-25	2	10-20	14	20-30
SVE 46	H	8	30	--	20-30	6	20-30	--	20-30	8	20-30	11	15-25	12	10-20	8	10-20	8	15-25	11	10-20	13	20-30
SVE 47	H	4	35	--	20-30	5	20-30	--	20-30	5.9	20-30	8	15-25	9	10-20	6	10-20	8	15-25	7	10-20	11	20-30
SVE 48	H	0	30	--	20-30	2	20-30	--	20-30	3.9	20-30	9	15-25	7	10-20	4	10-20	6	15-25	5	10-20	8	20-30
SVE 49	H	8	--	--	20-30	6	20-30	--	20-30														

Table 1
Summary of Vacuum Pressures and Flow Rates from the SVE Wells
Wayne Reclamation and Recycling
Columbia City, Indiana

SVE Well	Branch	Apr-00		Oct-00		Apr-01	
		Vacuum (in_H2O)	Flow (cfm)	Vacuum (in_H2O)	Flow (cfm)	Vacuum (in_H2O)	Flow (cfm)
SOUTHEAST AREA							
SVE 1	A	24	125-135	14	130-140	15	75-80
SVE 2	A	20	125-135	15	130-140	13	75-80
SVE 3	A	22	125-135	9	130-140	14	75-80
SVE 4	A	26	125-135	12	130-140	17	75-80
SVE 5	A	12	125-135	6.2	130-140	12	75-80
SVE 6	A	24	125-135	15	130-140	15	75-80
SVE 7	F	27	45-55	12	60-65	14	30-35
SVE 8	F	31	45-55	14	60-65	17	30-35
SVE 9	F	31	45-55	13	60-65	16	30-35
SVE 10	F	30	45-55	14	60-65	16	30-35
SVE 11	F	20	45-55	8	60-65	14	30-35
SVE 12	F	32	45-55	5	60-65	16	30-35
SVE 13	B	9	95-105	5	85-90	7	50-55
SVE 14	B	9	95-105	9	85-90	8	50-55
SVE 15	B	10	95-105	8.6	85-90	10	50-55
SVE 16	B	10	95-105	9.4	85-90	10	50-55
SVE 17	B	10	95-105	7	85-90	10	50-55
SVE 18	B	17	95-105	12	85-90	12	50-55
SVE 19	B	20	95-105	16	85-90	14	50-55
SVE 20	E	13	65-75	13	75-85	8	30-35
SVE 21	E	13	65-75	12	75-85	10	30-35
SVE 22	E	14	65-75	13	75-85	10	30-35
SVE 23	E	14	65-75	13	75-85	10	30-35
SVE 24	E	14	65-75	14	75-85	10	30-35
SVE 25	E	6	65-75	4.6	75-85	5	30-35
SVE 26	E	8	65-75	12	75-85	8	30-35
SVE 27	C	12	75-85	11	55-65	9	30-35
SVE 28	C	13	75-85	13	55-65	10	30-35
SVE 29	C	9	75-85	8	55-65	7	30-35
SVE 30	C	12	75-85	11	55-65	7	30-35
SVE 31	C	16	75-85	16	55-65	10	30-35
SVE 32	C	16	75-85	18	55-65	15	30-35
SVE 33	C	10	75-85	19	55-65	12	30-35
SVE 34	D	30	50-60	17	20-25	14	10-20
SVE 35	D	26	50-60	19	20-25	16	10-20
SVE 36	D	27	50-60	19	20-25	15	10-20
SVE 37	D	38	50-60	19	20-25	20	10-20
SVE 38	D	32	50-60	18	20-25	13	10-20
SVE 39	D	24	50-60	13	20-25	15	10-20
SVE 40S	D	43	50-60	19	20-25	15	10-20
SVE 40D	D	44	50-60	20	20-25	15	10-20
AST AREA							
SVE 41	G	3	20-30	2	20-30	13	10-20
SVE 42	G	3	20-30	4.4	20-30	>10	10-20
SVE 43	G	8	20-30	8	20-30	>10	10-20
SVE 44	H	4	20-30	8.6	20-30	...	...
SVE 45	H	5	20-30	8.6	20-30	...	...
SVE 46	H	2	20-30	8.6	20-30	...	...
SVE 47	H	8	20-30	6	20-30	...	...
SVE 48	H	11	20-30	6	20-30	...	...
SVE 49	H	13	20-30	8.4	20-30	...	...
SVE 50	G	12	20-30	2	20-30	11	10-20
SVE 51	H	9	20-30	9	20-30	...	...
SVE 52	H	6	20-30	8	20-30	...	...
SVE 53	G	8	20-30	4.2	20-30	>10	10-20
SVE 54	G	10	20-30	2.8	20-30	11	10-20
SVE 55	G	11	20-30	3.4	20-30	17	10-20

Table I
Summary of Vacuum Pressures and Flow Rates from the SVE Wells
Wayne Reclamation and Recycling
Columbia City, Indiana

Notes:

1. Vacuum measurements are reported in inches of water.
2. Flow measurement reported in cubic feet per minute. All flow measurements are approximate.
3. ... equals no value recorded.
4. Flow measurements for SVE 41-55 taken in February 1996 are estimated based off branch line measurements.
5. Vacuum measurements for Nov. 96, SVE 1-12 and 27-40D, are estimated based on branch line measurements, the rest are based on direct readings.
6. Vacuum measurements for Dec. 96 are estimated based on branch line measurements except for SVE 4, 6, 15, 21, 22, 23, 27, 38, and 46, which are based on direct readings.
7. January 97 values taken with SVE branch A closed. AST area flow at approximately 100 cfm, and SE flow at approximately 1100 cfm.
8. July 97 values taken with branch line A throttled back to approximately 200 scfm with the rest of the branch line wide open. Total flowrate approximately 1400 scfm.
9. November 97 values taken with all SE branch lines wide open. Total flowrate approximately 1460 scfm from SE area. AST area flow approximately 200 scfm.
10. April 98 values taken with all SE branch lines wide open. Total flowrate approximately 1340 scfm from SE area. AST area flow approximately 200 scfm.
11. * indicates a broken vacuum gauge.
12. October 1998 flow readings collected with three lines operative and the remaining three off. Initial readings were collected from lines A, D, and F. Then, lines A, D, and F were turned off and lines B, E, and C were turned on. Approximate total flow from SE and AST areas is 1295 cfm and 305 cfm, respectively.
13. April 1999 flow readings collected with three lines operative and the remaining three off. Initial readings were collected from lines A, D, and F. Then, lines A, D, and F were turned off and lines B, E, and C were turned on. Approximate total flow from SE and AST areas is 2730 cfm and 210 cfm, respectively.
14. October 1999 flow readings collected with three lines operative and the remaining three off. Initial readings were collected from lines A, B, and F. Then, lines A, B, and F were turned off and lines D, E, and C were turned on. Approximate total flow from SE and AST areas is 2590 cfm and 400 cfm (December 1999), respectively.
15. April 2000 flow readings collected with three lines operative and the remaining three off. Initial readings were collected from lines B, E, and C, then from lines A, D, and F. Approximate total flow from SE and AST areas is 1,500 cfm and 400 cfm, respectively during the time measurements were collected. Note, SVE flows constantly change due to cycling of the air stripper.
16. October 2000 flow readings collected with three lines operative and the remaining three off. Initial readings were collected from lines E, C, and D (1200cfm total), then from lines A, F, and B (1800cfm total). AST area flow fluctuates based on air stripper performance and which SE area branch lines open. Estimate at approximately 400cfm.
17. April 2001 flow readings collected with all six lines (A-F) operative (1,600cfm total), and the groundwater extraction system turned off. Approximate total flow from AST area is 224cfm.
18. April 2001 readings for Branch H were not collected due to accumulated water in the extraction lines.

Table 2
Summary of Vacuums Measured at the SVE Monitoring Points
Wayne Reclamation and Recycling
Columbia City, Indiana

Monitoring Point	Location	Vacuum - 1/9/96	Vacuum - 2/15/96	Vacuum - 2/16/96	Vacuum - 2/18/96	Vacuum - 12/10/96	Vacuum - 7/24/97	Vacuum - 11/18/97	Vacuum - 4/21/98	Vacuum - 10/14/98	Vacuum - 4/13/99	Vacuum - 12/9/99	Vacuum - 4/18/00	Vacuum - 10/2/00	Vacuum - 4/19/01
PP1 S/D	SE	0.80/0.50	4.30/2.80	2.40/2.60	3.90/3.30	0.95/0.65	0.40/0.20	0.65/0.00	1.10/0.00	0.40/0.20	1.75/0.80	0.60/0.25	1.30/0.55	0.70/0.15	1.20/0.30
PP2 S/D	SE	0.15/0.30	1.80/2.40	1.60/2.20	---	0.10/0.30	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.20/0.45	0.05/0.10	0.16/0.51	0.10/0.15	0.00/0.10
PP3 S/D	SE	0.00/0.40	0.70/3.40	0.50/2.60	---	0.01/0.45	0.00/0.15	0.01/0.01	0.05/0.15	0.20	0.35/0.85	0.00/0.25	0.14/0.45	0.10/0.40	0.10/0.30
PP6 S/D	AST	---	---	---	---	0.30/0.00	0.35/0.00	0.00/0.00	0.00/0.30	0.00/0.45	0.00/0.00	0.00/0.10	0.10/0.35	0.00/0.00	
PP8 S/D	SE	2.20/2.90	7.30/7.80	8.60/9.20	---	1.30/1.90	0.50/1.20	0.25/0.75	0.45/0.65	0.40/0.60	0.50/1.80	0.25/0.50	0.00/0.00	0.25/0.90	0.10/0.80
PP9 S/D	SE	2.50/2.60	8.00/8.00	8.70/9.00	---	1.70/1.75	0.35/0.60	0.40/0.60	0.75/0.85	0.40/0.60	1.20/1.55	0.20/0.75	0.17/0.22	0.35/0.90	0.20/0.80
PP10 S/D	SE	1.50/1.50	5.30/5.50	5.80/6.00	---	0.85/1.00	0.25/0.60	0.20/0.20	0.70/0.85	0.15/0.25	0.85/1.15	0.10/0.25	0.91/0.52	0.10/0.35	0.10/0.40
PP11 S/D	SE	0.00/1.50	0.25/4.80	2.80/5.40	---	1.05/0.00	0.00/0.35	0.00/0.65	0.00/0.20	0.00/0.60	0.00/1.15	0.00/0.25	0.03/0.60	0.00/0.50	0.00/0.40
PP12 S/D	SE	0.80/1.30	5.00/5.00	5.00/5.20	---	1.20/1.70	0.75/1.00	0.25/0.35	1.00/0.00	0.15/0.60	1.00/1.25	0.15/0.25	0.71/0.90	0.30/0.50	0.70/1.20
PP13 S/D	SE	1.60/1.60	4.00/4.60	3.60/4.00	---	1.65/1.80	0.60/0.70	0.40/0.45	1.40/1.45	0.30/0.45	1.30/1.55	0.25/0.35	0.86/1.03	0.40/0.45	0.80/1.00
PP14 S/D	SE	0.20/0.20	3.10/3.20	2.90/2.90	2.50/2.70	0.15/0.15	0.00/0.00	0.00/0.00	0.15/0.00	0.10/0.15	0.55/0.70	0.05/0.15	0.42/0.66	0.15/0.20	0.05/0.10
PP15 S/D	SE	0.80/0.00	4.90/0.00	4.80/0.00	4.30/0.00	0.30/0.00	0.25/0.00	0.15/0.00	0.15/0.00	0.05/0.00	0.30/0.00	0.05/0.00	0.15/0.00	0.15/0.00	0.10/0.00
PP16 S/D	SE	0.00/0.00	2.80/0.00	2.50/0.00	1.80/0.00	0.01/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.05/0.00	0.00/0.00	0.09/0.02	0.00/0.00	0.00/0.00
PP17 S/D	SE	0.60/0.80	3.70/0.40	3.20/0.10	2.60/0.60	0.55/0.00	0.50/0.00	0.40/0.45	0.35/0.00	0.10/0.10	0.40/0.00	0.15/0.15	0.26/0.04	0.00/0.00	0.00/0.00
PP18 S/D	SE	1.50/2.20	4.00/5.50	3.70/4.90	2.90/4.50	1.55/1.90	0.00/0.65	0.70/0.85	1.20/1.30	0.60/0.95	1.70/1.95	0.55/1.0	1.16/1.42	0.30/0.40	0.40/0.45
PP19 S/D	SE	1.10/0.00	4.10/0.00	4.20/0.00	3.40/0.00	0.85/0.00	0.45/0.00	0.50/0.00	0.35/0.00	0.20/0.00	0.20/0.00	0.50/0.00	0.09/0.00	0.10/0.30	0.00/0.00
PP20 S/D	AST	---	---	---	---	---	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00
PP21 S/D	AST	---	---	---	---	---	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.25	0.00/0.01	0.00/0.00	0.00/0.00
PP22 S/D	AST	---	---	---	---	---	0.15/0.00	0.05/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.125	0.20/0.30	0.00/0.15	0.00/0.30
MW2S	SE	1.00	5.50	6.30	---	0.85	0.40	0.15	0.35	0.10	0.60	0.15	0.25	0.15	0.10/0.00
MW3S	SE	---	5.50	---	4.40	0.01	1.40	1.50	1.50	0.45	2.40	0.50	0.95	0.00	0.60/0.00
MW10S	SE	0.50	4.30	4.00	---	0.75	0.25	0.15	0.50	0.40	0.70	0.05	0.89	0.00	0.40/0.00
MW11S	SE	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00/0.00

Notes:

1. Vacuums reported in inches of water.
2. --- indicates no data available.
3. December 1996 measurements taken with all SVE lines open. SE area flow approximately 1200 cfm. AST area flow approx. 400 cfm.
4. July 1997 values taken with SE area flow at approximately 1,100 scfm and AST area at approximately 300 scfm.
5. November 1997 values taken with all SE branch lines wide open. SE flowrate approximately 1,460 scfm. AST flowrate approximately 200 scfm.
6. April 1999 measurements were taken with Branch lines A, F, and B open and operating and again with Branch lines C, D, and E open and operating. The highest value collected was reported.
7. December 1999 measurements were taken with Branch lines A, F, and B open and operating and again with Branch lines C, D, and E open and operating. The highest value collected was reported.
8. April 2000 measurements were taken with Branch lines A, D, and F open and operating and again with Branch lines B, C, and E open and operating. The highest value collected was reported.
9. October 2000 measurements were taken once on October 2, 2000 with branch lines E, C, and D open and operating, and again on October 6, 2000 with branch lines A, F, and B open and operating. The highest value collected was reported.
10. April 2001 measurements were collected with all six Branch lines open and operating. SE flowrate approximately 1,600 scfm. AST flowrate approximately 224 scfm.

Table 3
Summary of Branch Line VOC Measurements
Wayne Reclamation and Recycling
Columbia City, Indiana

	<u>SVE Wells</u>	Feb-96			Nov-96				Dec-96				Sep-97				Nov-97				
		PID (ppm)	TCE (ppm)	DCE (ppm)	PID (ppm)	TCE (ppm)	DCE (ppm)	VC (ppm)													
<u>SOUTHEAST AREA</u>																					
Branch A	1 - 6	27	2	6	0	---	---	---	0	0	0	0	0.6	2.2	<5	2.7	8.6	2	6	6	
Branch F	7 - 12	22	1.9	2.4	17	4	8	---	15	4	12	9	0.8	<1	<5	0.8	19	7	12	14	
Branch B	13 - 19	10	1	4	2	---	---	---	8	3	8	6	0.4	<1	<5	0.8	10	5	1	5	
Branch E	20 - 26	4	4	6	10	2	5	---	8	4	10	4	0.4	0.8	<5	0.8	6.9	2	1	3	
Branch C	27 - 33	13	3	8	1	---	---	---	11	4	8	7	0.4	1	<5	0.4	10	5	10	10	
Branch D	34 - 40D	15	3	8	16	3	7	---	10	4	10	10	7.3	6.5	12	5.5	11	5	8	8	
Branch A-F	1 - 40D	31	5	7	19	12	15	10	15	13	15	10	6.9	---	---	---	8	---	---	---	
<u>AST AREA</u>																					
Branch G (east)	41-43,50,53-55	17	2	6	0.3	<1	<5	<0.2	---	---	---	---	3.9	---	---	---	<1	---	---	---	
Branch H (west)	44-49,51-52	0	---	---	2.1	<1	<5	2	---	---	---	---	1.1	---	---	---	<1	---	---	---	

Notes:

1. PID = Photoionization Detector. TCE = Trichloroethylene. DCE = Dichloroethylene.
VC = Vinyl Chloride.
2. TCE, DCE, and VC measurements reported in parts per million (ppm) via colormetric tubes.
3. --- indicates no reading was recorded via colormetric tubes (see laboratory summa canister sampling results).
4. Effective April 1998, DCE colorimetric tubes were unavailable.
5. PID readings for Branch A-F in April 1999 were collected with only Branches A, B, and F operating and then with only Branches C, D, and E operating. The two values collected were then averaged.
6. April and October 2000 PID readings for the SE Area were completed while air sparging was off.

Table 3
Summary of Branch Line VOC Measurements
Wayne Reclamation and Recycling
Columbia City, Indiana

	Apr-98			Oct-98			Apr-99			Oct-99			Apr-00			Oct-00			
	PID (ppm)	TCE (ppm)	VC (ppm)	PID (ppm)	TCE (ppm)	VC (ppm)	PID (ppm)	TCE (ppm)	VC (ppm)	PID (ppm)	TCE (ppm)	VC (ppm)	PID (ppm)	TCE (ppm)	VC (ppm)	PID (ppm)	TCE (ppm)	VC (ppm)	
SOUTHEAST AREA																			
SVE Wells																			
Branch A	1 - 6	1.9	<2	2.7	12	2	8	2.8	<1	2.5	3.9	3	3.5	2	<1	1.2	4.3	4	3.5
Branch F	7 - 12	2.5	2	3.8	14	12	15	6.4	1.8	4.4	9.4	7	5.2	7.6	1.3	3.6	5.6	6	4.2
Branch B	13 - 19	0.7	<2	1.2	8.4	4	7	3.2	<1	1.7	3.1	3	1.8	3.4	0.6	1	3	4	1.9
Branch E	20 - 26	1.7	<2	1.4	9.6	5	8	0.7	1.2	1.9	5.2	5	3.2	1	0.8	0.7	2.6	4	1.5
Branch C	27 - 33	2.3	<2	1.2	11	4	9	2.8	<1	2.2	6.2	4	3.9	2.6	1	0.7	3.6	5	4
Branch D	34 - 40D	10.3	5	8.8	9.8	5	7	0.5	<1	1.5	3.8	4	3.0	0.4	0.8	0.7	2.8	4	3.4
Branch A-F	1 - 40D	1.6	---	---	12.1	---	---	2.25	---	---	---	---	---	---	---	---	---	---	
AST AREA																			
Branch G (east)	41-43,50,53-55	0.4	---	---	8.2	---	---	1.5	---	---	---	---	---	2.2	1.2	1	---	---	---
Branch H (west)	44-49,51-52	0.3	---	---	2.3	---	---	1.5	---	---	---	---	---	0.4	<0.5	0.3	---	---	---

Notes:

1. PID = Photoionization Detector. TCE = Trichloroethylene. DCE = Dichloroethylene.
VC = Vinyl Chloride.
2. TCE, DCE, and VC measurements reported in parts per million (ppm) via colormetric tubes.
3. --- indicates no reading was recorded via colormetric tubes (see laboratory summa canister sampling results).
4. Effective April 1998, DCE colormetric tubes were unavailable.
5. PID readings for Branch A-F in April 1999 were collected with only Branches A, B, and F operating and then with only Branches C, D, and E operating. The two values collected were then averaged.
6. April and October 2000 PID readings for the SE Area were completed while air sparging was off.

Table 3
Summary of Branch Line VOC Measurements
Wayne Reclamation and Recycling
Columbia City, Indiana

		<u>Apr-01</u>		
	PID	TCE	VC	
	(ppm)	(ppm)	(ppm)	
<u>SOUTHEAST AREA</u>				
<u>SVE Wells</u>				
Branch A	1 - 6	<1	0.50	0.70
Branch F	7 - 12	<1	1.00	0.80
Branch B	13 - 19	<1	1.00	0.60
Branch E	20 - 26	<1	1.00	1.00
Branch C	27 - 33	<1	1.00	1.10
Branch D	34 - 40D	<1	0.63	0.60
Branch A-F	1 - 40D	---	---	---
<u>AST AREA</u>				
Branch G (east)	41-43,50,53-55	---	---	---
Branch H (west)	44-49,51-52	---	---	---

Notes:

1. PID = Photoionization Detector. TCE = Trichloroethylene. DCE = Dichloroethylene.
VC = Vinyl Chloride.
2. TCE, DCE, and VC measurements reported in parts per million (ppm) via colormetric tubes.
3. --- indicates no reading was recorded via colormetric tubes (see laboratory summa canister sampling results).
4. Effective April 1998, DCE colorimetric tubes were unavailable.
5. PID readings for Branch A-F in April 1999 were collected with only Branches A, B, and F operating and then with only Branches C, D, and E operating. The two values collected were then averaged.
6. April and October 2000 PID readings for the SE Area were completed while air sparging was off.

Table 4
Summary of Pressure and Flow Measurements at the Air Sparging Wells April 2001
Wayne Reclamation and Recycling
Columbia City, Indiana

Branch	SHALLOW WELL		DEEP WELL		
	Pressure (psi)	Flow (cfm)	Pressure (psi)	Flow (cfm)	
A	AS1	6.0	1.0	>15	1.0
A	AS2	5.0	1.0	>15	1.0
A	AS3	2.0	1.0	10.0	1.0
A	AS4	3.0	1.0	10.0	1.0
A	AS5	5.0	1.0	11.0	1.0
A	AS6	5.0	1.0	15.0	1.0
F	AS7	4.0	1.0	13.0	1.0
F	AS8	5.0	1.0	11.0	1.0
F	AS9	2.0	1.0	12.0	1.0
F	AS10	3.0	1.0	11.0	1.0
F	AS11	5.0	1.0	9.0	1.0
F	AS12	4.0	1.0	13.0	1.0
B	AS13	6.0	1.0	14.0	1.0
B	AS14	3.0	1.0	14.0	1.0
B	AS15	3.0	1.0	10.0	1.0
B	AS16	4.0	1.0	10.0	1.0
B	AS17	3.0	1.0	10.0	1.0
B	AS18	5.0	1.0	11.0	1.0
B	AS19	4.0	1.0	12.0	1.0
E	AS20	12.0	1.0	13.0	1.0
E	AS21	3.0	1.0	13.0	1.0
E	AS22	7.0	1.0	12.0	1.0
E	AS23	5.0	1.0	11.0	1.0
E	AS24	6.0	1.0	11.0	1.0
E	AS25	5.0	1.0	10.0	1.0
E	AS26	5.0	1.0	11.0	1.0
C	AS27	7.0	1.0	12.0	1.0
C	AS28	7.0	1.0	12.0	1.0
C	AS29	4.0	1.0	8.0	1.0
C	AS30	2.0	1.0	5.0	1.0
C	AS31	5.0	1.0	11.0	1.0
C	AS32	5.0	1.0	10.0	1.0
C	AS33	4.0	1.0	9.0	1.0
D	AS34	6.0	1.0	11.0	1.0
D	AS35	7.0	1.0	10.0	1.0
D	AS36	6.0	1.0	10.0	1.0
D	AS37	5.0	1.0	8.0	1.0
D	AS38	5.0	1.0	8.0	1.0
D	AS39	5.0	1.0	9.0	1.0
D	AS40	7.0	1.0	9.0	1.0

Notes:

1. Pressures reported in pounds per square inch (psi).

2. Air flowrates reported in cubic feet per minute (cfm).

3. Air flowrates manually adjusted at well head as indicated with resulting injection pressures recorded.

4. Pressure and flow values were recorded on 04/27/01 for branches A, B, and F.

5. Pressure and flow values were recorded on 04/28/01 for branches C, D, and E.

Table 5
Summary of Southeast Area Dissolved Oxygen Measurements
Wayne Reclamation and Recycling
Columbia City, Indiana

Monitoring Point	Jan-96 D.O. (mg/L)	Feb-96 D.O. (mg/L)	Dec-96 D.O. (mg/L)	Jun-97 D.O. (mg/L)	Sep-97 D.O. (mg/L)	Nov-97 D.O. (mg/L)	May-98 D.O. (mg/L)	Oct-98 D.O. (mg/L)	Apr-99 D.O. (mg/L)	Jun-99 D.O. (mg/L)	Oct-99 D.O. (mg/L)
MW2S	1.30	3.40	1.65	1.30	1.36	1.70	0.90	5.50	10.00	10.00	12.00
MW3S	---	6.00	3.64	1.60	0.60	2.00	0.90	3.00	8.00	8.00	1.00
MW10S	0.80	2.60	1.40	0.80	0.60	3.10	1.70	3.50	12.00	12.00	12.00
MW11S	2.80	9.80	1.69	1.55	9.18	10.60	6.60	6.00	3.00	3.00	<1
MW83AS	0.80	3.80	1.35	2.22	1.07	3.20	0.60	4.50	2.00	2.00	<1
RW5	---	---	1.27	1.22	1.55	1.10	2.00	1.00	2.00	---	<1
RW6	---	---	1.27	0.64	1.12	1.20	2.00	6.00	3.00	---	2.00
RW7	---	---	4.06	0.76	3.12	1.10	4.00	8.00	8.00	---	2.00
RW8	---	---	2.27	1.52	2.47	4.00	1.00	6.00	5.00	---	1.00
RW9	---	---	1.33	1.25	6.96	1.50	8.00	5.00	8.00	---	1.00
RW10	---	---	1.07	0.73	2.77	7.60	4.00	1.00	3.00	---	2.00

Monitoring Point	Apr-00 D.O. (mg/L)	Oct-00 D.O. (mg/L)	Apr-01 D.O. (mg/L)
MW2S	8.00	0.87	8.00
MW3S	8.00	1.91	1.00
MW10S	10.00	2.15	2.00
MW11S	2.00	7.41	<1
MW83AS	2.00	1.01	<1
RW5	1.00	1.96	1.00
RW6	4.00	0.96	3.00
RW7	9.00	5.14	3.00
RW8	4.00	1.85	<1
RW9	7.00	3.35	4.00
RW10	2.00	1.01	1.00

NOTES:

1. Dissolved oxygen levels reported in milligrams per liter (mg/L).
2. --- indicates no reading was recorded.
3. All monitoring points listed above are located inside the slurry wall where sparging occurs, except RW5.

Table 6
Summary of Summa Canister Sampling for SVE Lines
Wayne Reclamation and Recycling
Columbia City, Indiana

Contaminant	SE Area Branches A-F (AS-ON) <u>9-Jan-96</u>	SE Area Branches A-F (AS-ON) <u>15-Feb-96</u>	SE Area Branches A-F (AS-ON) <u>16-Feb-96</u>	SE Area Branches A-F (AS-ON) <u>18-Feb-96</u>	SE Area Branches A-F (AS-ON) <u>25-Nov-96</u>	SE Area Branches A-F (AS-OFF) <u>27-Nov-96</u>	SE Area Branches A-F (AS-ON) <u>3-Sep-97</u>	SE Area Branches A-F (AS-OFF) <u>5-Sep-97</u>
Tetrachloroethene	670	470	470	470	450	370	370	370
Trichloroethene	9100	8600	7200	7100	4000	3000	2,800	2,800
cis 1,2-Dichloroethene	9600	6800	6600	6400	5300	3700	2,900	3,000
trans 1,2-Dichloroethene	850	460	540	480	490	340	370	380
Vinyl Chloride	<84	<72	240	230	61	<34	130	200
1,1,1-Trichloroethane	1300	810	770	700	520	340	280	290
1,1-Dichloroethane	230	230	300	180	120	81	88	82
Xylenes (total)	<84	<72	<72	<72	<36	<34	<17	<34
4-Ethyltoluene	<84	<72	<72	<72	<36	<34	<17	<34
1,3,5-Trimethylbenzene	<84	<72	<72	<72	<36	<34	<17	<34
1,2,4-Trimethylbenzene	<84	<72	<72	<72	<36	<34	<17	<34
SVE Well Groups	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D

Notes:

1. All results reported in parts per billion (volume/volume basis).
2. AST = aboveground storage tank area.
3. SE = southeast area.
4. AS = air sparging (on or off).
5. Branch G = east branch
6. Branch H = west branch
7. NA = parameter not analyzed.

Table 6
Summary of Summa Canister Sampling for SVE Lines
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	SE Area Branches A-F (AS-ON) <u>18-Nov-97</u>	SE Area Branches A-F (AS-OFF) <u>21-Nov-97</u>	SE Area Branches A-F (AS-ON) <u>21-Apr-98</u>	SE Area Branches A-F (AS-OFF) <u>28-Apr-98</u>	SE Area Branches A-F (AS-ON) <u>14-Oct-98</u>	SE Area Branches A-F (AS-OFF) <u>16-Oct-98</u>	SE Area Branches A-F (AS-ON) <u>26-Apr-99</u>	SE Area Branches A-F (AS-OFF) <u>13-Apr-99</u>	SE Area Branches A-F (AS-ON) <u>14-Dec-99</u>	SE Area Branches A-F (AS-OFF) <u>21-Dec-99</u>
Tetrachloroethene	240	220	56	100	450	270	53	5	54	58
Trichloroethene	3,800	3,500	330	540	2,500	2,900	250	94	650	540
cis 1,2-Dichloroethene	4,400	4,300	830	1,000	3,300	3,500	410	210	1,500	1,300
trans 1,2-Dichloroethene	460	460	71	74	280	360	40	22	180	160
Vinyl Chloride	89	56	85	<12	<25	<25	12	15	180	29
1,1,1-Trichloroethane	270	290	47	51	280	190	90	6	100	87
1,1-Dichloroethane	98	92	20	19	70	73	14	5	47	38
Xylenes (total)	<36	<30	23	14	<25	<25	29	5	<9.7	<7.8
4-Ethyltoluene	<36	<30	<12	<12	<25	<25	7	<2	<9.7	<7.8
1,3,5-Trimethylbenzene	<36	<30	<12	<12	<25	<25	<2	<2	<9.7	<7.8
1,2,4-Trimethylbenzene	<36	<30	13	<12	<25	<25	14	2	<9.7	<7.8
SVE Well Groups	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D

Notes:

1. All results reported in parts per billion (volume/volume basis).
2. AST = aboveground storage tank area.
3. SE = southeast area.
4. AS = air sparging (on or off).
5. Branch G = east branch
6. Branch H = west branch
7. NA = parameter not analyzed.

Table 6
Summary of Summa Canister Sampling for SVE Lines
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	SE Area Branches A-F <u>(AS-ON) 18-Apr-00</u>	SE Area Branches A-F <u>(AS-OFF) 29-Apr-00</u>	SE Area Branches A-F <u>(AS-ON) 6-Oct-00</u>	SE Area Branches A-F <u>(AS-OFF) 10-Oct-00</u>	SE Area Branches A-F <u>(AS-ON) 27-Apr-01</u>	SE Area Branches A-F <u>(AS-OFF) 23-Apr-01</u>
Tetrachloroethene	52	79	52	95	20	<140
Trichloroethene	400	710	920	750	150	140
cis 1,2-Dichloroethene	580	1,400	2,200	1,300	270	150
trans 1,2-Dichloroethene	59	130	160	130	NA	NA
Vinyl Chloride	12	<13	130	<8.2	60	<140
1,1,1-Trichloroethane	56	74	93	75	29	<140
1,1-Dichloroethane	17	29	49	32	<6.9	<140
Xylenes (total)	<6.7	<13	<18	<8.2	<5.7	<140
4-Ethyltoluene	<6.7	<13	<18	<8.2	NA	NA
1,3,5-Trimethylbenzene	<6.7	<13	<18	<8.2	<6.9	<140
1,2,4-Trimethylbenzene	<6.7	<13	<18	<8.2	<6.9	<140
SVE Well Groups	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D	1 - 40D

Notes:

1. All results reported in parts per billion (volume/volume basis).
2. AST = aboveground storage tank area.
3. SE = southeast area.
4. AS = air sparging (on or off).
5. Branch G = east branch
6. Branch H = west branch
7. NA = parameter not analyzed.

Table 6
Summary of Summa Canister Sampling for SVE Lines
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	AST Area Branches G&H <u>11-Jan-96</u>	AST Area Branch G <u>25-Nov-96</u>	AST Area Branch G <u>3-Sep-97</u>	AST Area Branch G <u>18-Nov-97</u>	AST Area Branch G <u>21-Apr-98</u>	AST Area Branch G <u>16-Oct-98</u>	AST Area Branch G <u>21-Apr-99</u>	AST Area Branch G <u>22-Nov-99</u>	AST Area Branch G <u>18-Apr-00</u>	AST Area Branch G <u>2-Oct-00</u>	AST Area Branch G <u>23-Apr-01</u>
Tetrachloroethene	1600	<22	460	67	21	6	2.8	<2.0	58	75	15
Trichloroethene	1700	140	1500	420	57	48	8.1	9	590	710	57
cis 1,2-Dichloroethene	1800	660	820	310	110	50	21	24	330	300	21
trans 1,2-Dichloroethene	120	63	59	24	4.8	2.2	<2.0	<2.0	28	27	NA
Vinyl Chloride	130	<22	<8.4	22	7	<2.0	2.3	3.6	<7.3	<6.1	<0.74
1,1,1-Trichloroethane	790	2700	180	65	3.4	2	<2.0	<2.0	55	61	9.9
1,1-Dichloroethane	39	270	11	6	<2	<2.0	<2.0	<2.0	9.1	10	1.3
Xylenes (total)	55	<22	25	46	57	<2.0	18	2.1	<7.3	31	3.49
4-Ethyltoluene	190	<22	10	3	16	<2.0	4	2.1	<7.3	<6.1	NA
1,3,5-Trimethylbenzene	120	<22	20	4	6.3	<2.0	2.2	<2.0	<7.3	<6.1	<0.71
1,2,4-Trimethylbenzene	230	<22	12	4	22	<2.0	7.5	2.8	<7.3	<6.1	<0.71
SVE Well Groups	41 - 55	41-43,50,53-55	41-43,50,53-55	41-43,50,53-55	41-43,50,53-55	41-43,50,53-55	41-43,50,53-55	41-43,50,53-55	41-43,50,53-55	41-43,50,53-55	41-43,50,53-55

Notes:

1. All results reported in parts per billion (volume/volume basis).
2. AST = aboveground storage tank area.
3. SE = southeast area.
4. AS = air sparging (on or off).
5. Branch G = east branch
6. Branch H = west branch
7. NA = parameter not analyzed.

Table 6
Summary of Summa Canister Sampling for SVE Lines
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	AST Area Branch H 25-Nov-96	AST Area Branch H 3-Sep-97	AST Area Branch H 18-Nov-97	AST Area Branch H 21-Apr-98	AST Area Branch H 16-Oct-98	AST Area Branch H 21-Apr-99	AST Area Branch H 22-Nov-99	AST Area Branch H 18-Apr-00	AST Area Branch H 02-Oct-00	AST Area Branch H 23-Apr-01
Tetrachloroethene	650	<22	<12	30	85	3	4.2	5.4	16	8.0
Trichloroethene	1800	140	100	100	300	21	23	50	78	48
cis 1,2-Dichloroethene	1700	460	510	200	250	47	89	150	190	70
trans 1,2-Dichloroethene	120	57	60	12	15	3	11	14	16	NA
Vinyl Chloride	29	<22	<12	<4.2	<4.4	2	<3.2	<3.1	<2.0	<0.74
1,1,1-Trichloroethane	390	1,300	1,300	210	95	45	170	410	440	140
1,1-Dichloroethane	<8.9	160	160	28	14	5	27	34	40	13
Xylenes (total)	16	<22	32	60	<4.4	15	18	<3.1	<2.0	1.1
4-Ethyltoluene	83	<22	<12	15	<4.4	4	3.9	<3.1	<2.0	NA
1,3,5-Trimethylbenzene	87	<22	<12	6	<4.4	<2.0	<3.2	<3.1	<2.0	<0.71
1,2,4-Trimethylbenzene	130	<22	<12	20	<4.4	7	<32	<31	<2.0	1.7
SVE Well Groups	44-49,51-52	44-49,51-52	44-49,51-52	44-49,51-52	44-49,51-52	44-49,51-52	44-49,51-52	44-49,51-52	44-49,51-52	44-49,51-52

Notes:

1. All results reported in parts per billion (volume/volume basis).
2. AST = aboveground storage tank area.
3. SE = southeast area.
4. AS = air sparging (on or off).
5. Branch G = east branch
6. Branch H = west branch
7. NA = parameter not analyzed.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

DECEMBER 1995		JANUARY 1996		FEBRUARY 1996		MARCH 1996		APRIL 1996		MAY 1996		JUNE 1996	
DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)
1	0	1	5,000	1	77,000	1	74,000	1	66,000	1	58,000	1	44,000
2	0	2	4,000	2	6,000	2	74,000	2	66,000	2	49,000	2	34,000
3	0	3	35,000	3	78,000	3	74,000	3	66,000	3	30,000	3	53,000
4	0	4	52,000	4	50,000	4	74,000	4	66,000	4	30,000	4	52,000
5	0	5	74,000	5	53,000	5	53,000	5	82,000	5	31,000	5	72,000
6	0	6	61,000	6	74,000	6	20,000	6	82,000	6	84,000	6	64,000
7	0	7	63,000	7	54,000	7	50,000	7	82,000	7	46,000	7	64,000
8	3,652	8	63,000	8	40,000	8	52,000	8	52,000	8	0	8	56,000
9	0	9	62,000	9	0	9	22,000	9	52,000	9	51,000	9	57,000
10	0	10	20,000	10	70,000	10	0	10	86,000	10	31,000	10	55,000
11	0	11	20,000	11	62,000	11	0	11	60,000	11	68,000	11	74,000
12	0	12	20,000	12	78,000	12	0	12	60,000	12	68,000	12	66,000
13	0	13	93,000	13	78,000	13	0	13	71,000	13	59,000	13	44,000
14	0	14	16,000	14	61,000	14	0	14	71,000	14	59,000	14	95,000
15	0	15	54,000	15	80,000	15	0	15	48,000	15	56,000	15	95,000
16	0	16	0	16	57,000	16	0	16	48,000	16	10,000	16	0
17	0	17	0	17	62,000	17	0	17	52,000	17	0	17	0
18	0	18	0	18	50,000	18	0	18	68,000	18	18,000	18	0
19	0	19	0	19	91,000	19	10,000	19	46,000	19	36,000	19	0
20	67,621	20	0	20	91,000	20	62,000	20	50,000	20	62,000	20	0
21	99,703	21	0	21	83,000	21	0	21	50,000	21	62,000	21	0
22	109,000	22	188,000	22	65,000	22	0	22	74,000	22	58,000	22	0
23	92,000	23	0	23	68,000	23	0	23	74,000	23	58,000	23	0
24	82,000	24	30,000	24	68,000	24	0	24	74,000	24	55,000	24	0
25	82,000	25	30,000	25	45,000	25	0	25	74,000	25	56,000	25	0
26	81,000	26	70,000	26	35,000	26	0	26	70,000	26	55,000	26	0
27	70,000	27	75,000	27	70,000	27	0	27	70,000	27	56,000	27	0
28	72,000	28	27,000	28	67,000	28	0	28	70,000	28	62,000	28	0
29	100,000	29	53,000	29	67,000	29	73,000	29	66,000	29	61,000	29	0
30	28,000	30	53,000			30	73,000	30	66,000	30	69,000	30	0
31	5,000	31	77,000			31	72,000			31	69,000		
Total Monthly Flow (gallons)		891,976	Total Monthly Flow (gallons)		1,245,000	Total Monthly Flow (gallons)		1,780,000	Total Monthly Flow (gallons)		783,000	Total Monthly Flow (gallons)	
Average Daily Flow (gallons)		68,614	Average Daily Flow (gallons)		54,130	Average Daily Flow (gallons)		63,571	Average Daily Flow (gallons)		55,929	Average Daily Flow (gallons)	
Average Flow during actual plant run time (gpm)		51.6	Average Flow during actual plant run time (gpm)		36.0	Average Flow during actual plant run time (gpm)		44.1	Average Flow during actual plant run time (gpm)		38.8	Average Flow during actual plant run time (gpm)	

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

JULY 1996		AUGUST 1996		SEPTEMBER 1996		OCTOBER 1996		NOVEMBER 1996		DECEMBER 1996	
DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)
1	0	1	51,000	1	54,000	1	43,000	1	0	1	44,000
2	0	2	54,000	2	55,000	2	46,000	2	28,000	2	45,000
3	0	3	54,000	3	55,000	3	46,000	3	56,000	3	45,000
4	0	4	56,000	4	50,000	4	36,000	4	56,000	4	46,000
5	0	5	57,000	5	50,000	5	36,000	5	39,000	5	0
6	0	6	69,000	6	67,000	6	36,000	6	48,000	6	45,000
7	0	7	51,000	7	67,000	7	40,000	7	51,000	7	45,000
8	0	8	51,000	8	67,000	8	49,000	8	51,000	8	45,000
9	0	9	58,000	9	60,000	9	44,000	9	51,000	9	45,000
10	41,000	10	58,000	10	61,000	10	51,000	10	52,000	10	44,000
11	54,000	11	58,000	11	63,000	11	51,000	11	42,000	11	44,000
12	4,000	12	60,000	12	38,000	12	51,000	12	42,000	12	44,000
13	0	13	60,000	13	50,000	13	55,000	13	42,000	13	46,000
14	49,000	14	54,000	14	51,000	14	48,000	14	43,000	14	46,000
15	90,000	15	55,000	15	50,000	15	49,000	15	47,000	15	46,000
16	48,000	16	56,000	16	45,000	16	49,000	16	47,000	16	46,000
17	74,000	17	56,000	17	44,000	17	49,000	17	48,000	17	44,000
18	41,000	18	57,000	18	47,000	18	51,000	18	43,000	18	52,000
19	60,000	19	46,000	19	48,000	19	51,000	19	43,000	19	35,000
20	60,000	20	46,000	20	0	20	53,000	20	37,000	20	48,000
21	55,000	21	50,000	21	0	21	46,000	21	38,000	21	48,000
22	58,000	22	54,000	22	26,000	22	47,000	22	48,000	22	48,000
23	59,000	23	54,000	23	55,000	23	38,000	23	47,000	23	48,000
24	60,000	24	54,000	24	55,000	24	38,000	24	47,000	24	48,000
25	74,000	25	47,000	25	55,000	25	52,000	25	50,000	25	48,000
26	75,000	26	47,000	26	55,000	26	53,000	26	64,000	26	31,000
27	36,000	27	59,000	27	49,000	27	53,000	27	55,000	27	47,000
28	16,000	28	57,000	28	50,000	28	50,000	28	55,000	28	47,000
29	0	29	51,000	29	50,000	29	50,000	29	55,000	29	47,000
30	0	30	10,000	30	42,000	30	49,000	30	55,000	30	40,000
31	51,000	31	54,000			31	50,000			31	40,000
Total Monthly Flow (gallons)	1,005,000		1,644,000		1,459,000		1,460,000		1,380,000		1,347,000
Average Daily Flow (gallons)	52,895		53,032		52,107		47,097		47,586		44,900
Average Flow during actual plant run time (gpm)	36.7		36.8		36.2		32.7		33.0		31.2

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

JANUARY 1997		FEBRUARY 1997		MARCH 1997		APRIL 1997		MAY 1997		JUNE 1997	
DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)
1	44,000	1	49,000	1	33,000	1	74,000	1	57,000	1	54,000
2	31,000	2	49,000	2	34,000	2	64,000	2	62,000	2	49,000
3	49,000	3	41,000	3	46,000	3	64,000	3	62,000	3	49,000
4	49,000	4	41,000	4	46,000	4	64,000	4	62,000	4	49,000
5	50,000	5	35,000	5	27,000	5	64,000	5	59,000	5	48,000
6	41,000	6	35,000	6	40,000	6	64,000	6	59,000	6	48,000
7	41,000	7	41,000	7	44,000	7	64,000	7	59,000	7	48,000
8	44,000	8	41,000	8	44,000	8	75,000	8	59,000	8	48,000
9	44,000	9	41,000	9	44,000	9	58,000	9	20,000	9	41,000
10	48,000	10	36,000	10	40,000	10	58,000	10	28,000	10	41,000
11	48,000	11	35,000	11	41,000	11	28,000	11	62,000	11	41,000
12	48,000	12	42,000	12	52,000	12	58,000	12	55,000	12	41,000
13	42,000	13	42,000	13	53,000	13	58,000	13	46,000	13	49,000
14	43,000	14	45,000	14	18,000	14	60,000	14	55,000	14	49,000
15	43,000	15	46,000	15	10,000	15	60,000	15	55,000	15	49,000
16	43,000	16	45,000	16	53,000	16	32,000	16	47,000	16	42,000
17	42,000	17	46,000	17	59,000	17	33,000	17	47,000	17	42,000
18	42,000	18	41,000	18	63,000	18	72,000	18	19,000	18	26,000
19	42,000	19	41,000	19	61,000	19	72,000	19	19,000	19	42,000
20	42,000	20	20,000	20	36,000	20	72,000	20	63,000	20	42,000
21	42,000	21	45,000	21	71,000	21	63,000	21	63,000	21	30,000
22	39,000	22	45,000	22	71,000	22	63,000	22	63,000	22	16,000
23	36,000	23	45,000	23	71,000	23	55,000	23	31,000	23	42,000
24	52,000	24	30,000	24	71,000	24	55,000	24	56,000	24	42,000
25	44,000	25	54,000	25	75,000	25	64,000	25	56,000	25	29,000
26	44,000	26	41,000	26	72,000	26	64,000	26	56,000	26	25,000
27	41,000	27	41,000	27	78,000	27	64,000	27	46,000	27	48,000
28	42,000	28	16,000	28	74,000	28	64,000	28	46,000	28	48,000
29	46,000			29	74,000	29	56,000	29	46,000	29	48,000
30	47,000			30	74,000	30	57,000	30	54,000	30	48,000
31	49,000			31	74,000			31	54,000		
Total Monthly Flow (gallons)	1,358,000		902,000		1,649,000		1,799,000		1,566,000		1,274,000
Average Daily Flow (gallons)	43,806		32,214		53,194		59,967		50,516		42,467
Average Flow during actual plant run time (gpm)	30.4		22.4		36.9		41.6		35.1		29.5

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

	JULY 1997		AUGUST 1997		SEPTEMBER 1997		OCTOBER 1997		NOVEMBER 1997		DECEMBER 1997	
	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)
1	44,000	1	30,000	2	96,000	1	55,000	1	64,000	1	44,000	
2	34,000	2	30,000	2	96,000	2	55,000	2	64,000	2	97,000	
3	47,000	3	30,000	3	71,000	3	59,000	3	75,000	3	97,000	
4	47,000	4	30,000	4	71,000	4	59,000	4	75,000	4	97,000	
5	50,000	5	30,000	5	69,000	5	59,000	5	71,000	5	63,000	
6	50,000	6	30,000	6	68,000	6	48,000	6	81,000	6	63,000	
7	50,000	7	27,000	7	68,000	7	48,000	7	92,000	7	63,000	
8	42,000	8	30,000	8	69,000	8	50,000	8	92,000	8	65,000	
9	35,000	9	35,000	9	57,000	9	50,000	9	92,000	9	65,000	
10	27,000	10	35,000	10	84,000	10	50,000	10	83,000	10	65,000	
11	37,000	11	35,000	11	98,000	11	50,000	11	83,000	11	65,000	
12	29,000	12	29,000	12	89,000	12	50,000	12	78,000	12	59,000	
13	35,000	13	29,000	13	89,000	13	50,000	13	78,000	13	59,000	
14	16,000	14	27,000	14	89,000	14	50,000	14	86,000	14	59,000	
15	40,000	15	27,000	15	62,000	15	43,000	15	86,000	15	57,000	
16	40,000	16	25,000	16	62,000	16	43,000	16	86,000	16	57,000	
17	33,000	17	10,000	17	62,000	17	43,000	17	72,000	17	57,000	
18	33,000	18	29,000	18	63,000	18	96,000	18	72,000	18	57,000	
19	33,000	19	29,000	19	51,000	19	96,000	19	72,000	19	63,000	
20	22,000	20	29,000	20	26,000	20	96,000	20	77,000	20	63,000	
21	25,000	21	23,000	21	51,000	21	96,000	21	90,000	21	63,000	
22	39,000	22	23,000	22	66,000	22	80,000	22	90,000	22	63,000	
23	39,000	23	18,000	23	66,000	23	80,000	23	90,000	23	63,000	
24	37,000	24	23,000	24	66,000	24	78,000	24	90,000	24	62,000	
25	25,000	25	23,000	25	66,000	25	85,000	25	90,000	25	62,000	
26	37,000	26	57,000	26	67,000	26	85,000	26	89,000	26	56,000	
27	37,000	27	54,000	27	67,000	27	74,000	27	89,000	27	56,000	
28	36,000	28	51,000	28	67,000	28	85,000	28	76,000	28	56,000	
29	23,000	29	72,000	29	55,000	29	81,000	29	76,000	29	57,000	
30	35,000	30	72,000	30	55,000	30	81,000	30	76,000	30	57,000	
31	24,000	31	72,000			31	81,000			31	57,000	
Total Monthly Flow (gallons)	1,101,000		1,064,000		2,066,000		2,056,000		2,435,000		1,967,000	
Average Daily Flow (gallons)	35,516		34,323		68,867		66,323		81,167		63,452	
Average Flow during actual plant run time (gpm)	24.7		23.8		47.8		46.1		56.4		44.1	

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

JANUARY 1998		FEBRUARY 1998		MARCH 1998		APRIL 1998		MAY 1998		JUNE 1998	
DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)
1	58,000	1	34,000	1	55,000	1	55,000	1	63,000	1	91,000
2	60,000	2	16,000	2	55,000	2	55,000	2	63,000	2	91,000
3	60,000	3	28,000	3	55,000	3	46,000	3	63,000	3	85,000
4	60,000	4	66,000	4	55,000	4	55,000	4	63,000	4	91,000
5	60,000	5	66,000	5	55,000	5	55,000	5	63,000	5	88,000
6	60,000	6	71,000	6	63,000	6	55,000	6	63,000	6	78,000
7	60,000	7	74,000	7	67,000	7	55,000	7	63,000	7	88,000
8	60,000	8	74,000	8	67,000	8	55,000	8	24,000	8	88,000
9	60,000	9	74,000	9	67,000	9	55,000	9	57,000	9	80,000
10	49,000	10	74,000	10	67,000	10	42,000	10	57,000	10	84,000
11	49,000	11	74,000	11	67,000	11	55,000	11	57,000	11	58,000
12	49,000	12	74,000	12	67,000	12	55,000	12	57,000	12	86,000
13	49,000	13	61,000	13	58,000	13	36,000	13	57,000	13	0
14	49,000	14	58,000	14	59,000	14	35,000	14	57,000	14	23,000
15	49,000	15	58,000	15	59,000	15	32,000	15	43,000	15	68,000
16	49,000	16	58,000	16	59,000	16	36,000	16	53,000	16	53,000
17	49,000	17	58,000	17	59,000	17	39,000	17	24,000	17	56,000
18	49,000	18	58,000	18	59,000	18	38,000	18	38,000	18	127,000
19	49,000	19	58,000	19	59,000	19	55,000	19	53,000	19	129,000
20	49,000	20	61,000	20	48,000	20	31,000	20	53,000	20	142,000
21	49,000	21	62,000	21	56,000	21	55,000	21	53,000	21	104,000
22	49,000	22	62,000	22	56,000	22	55,000	22	32,000	22	142,000
23	41,000	23	62,000	23	43,000	23	55,000	23	17,000	23	142,000
24	41,000	24	62,000	24	33,000	24	41,000	24	19,000	24	142,000
25	41,000	25	62,000	25	51,000	25	55,000	25	53,000	25	62,000
26	41,000	26	62,000	26	50,000	26	55,000	26	53,000	26	18,000
27	32,000	27	62,000	27	56,000	27	55,000	27	53,000	27	0
28	0	28	57,000	28	56,000	28	55,000	28	53,000	28	0
29	10,000			29	40,000	29	43,000	29	79,000	29	0
30	45,000			30	35,000	30	55,000	30	91,000	30	0
31	73,000			31	55,000			31	82,000		
Total Monthly Flow (gallons)	1,499,000		1,686,000		1,731,000		1,464,000		1,656,000		2,216,000
Average Daily Flow (gallons)	49,967		60,214		55,839		48,800		53,419		73,867
Average Flow during actual plant run time (gpm)	34.7		41.8		38.8		33.9		37.8		65.4

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

JULY 1998		AUGUST 1998		SEPTEMBER 1998		OCTOBER 1998		NOVEMBER 1998		DECEMBER 1998	
DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)
1	0	1	42,000	1	68,000	1	73,000	1	61,000	1	72,000
2	51,000	2	0	2	101,000	2	33,000	2	52,000	2	45,000
3	101,000	3	40,000	3	101,000	3	81,000	3	76,000	3	25,000
4	101,000	4	89,000	4	87,000	4	81,000	4	70,000	4	38,000
5	101,000	5	89,000	5	63,000	5	81,000	5	76,000	5	63,000
6	101,000	6	89,000	6	101,000	6	81,000	6	43,000	6	64,000
7	101,000	7	79,000	7	101,000	7	79,000	7	69,000	7	64,000
8	101,000	8	82,000	8	55,000	8	29,000	8	69,000	8	64,000
9	101,000	9	82,000	9	51,000	9	12,000	9	69,000	9	64,000
10	68,000	10	82,000	10	76,000	10	0	10	69,000	10	64,000
11	84,000	11	82,000	11	80,000	11	0	11	69,000	11	71,000
12	84,000	12	47,000	12	51,000	12	46,000	12	69,000	12	71,000
13	84,000	13	9,000	13	0	13	81,000	13	69,000	13	71,000
14	84,000	14	14,000	14	52,000	14	81,000	14	69,000	14	71,000
15	84,000	15	66,000	15	73,000	15	81,000	15	69,000	15	71,000
16	84,000	16	66,000	16	79,000	16	81,000	16	69,000	16	71,000
17	84,000	17	66,000	17	80,000	17	44,000	17	69,000	17	71,000
18	40,000	18	66,000	18	81,000	18	0	18	68,000	18	29,000
19	0	19	66,000	19	83,000	19	42,000	19	69,000	19	0
20	0	20	66,000	20	78,000	20	81,000	20	47,000	20	0
21	0	21	88,000	21	62,000	21	58,000	21	81,000	21	0
22	0	22	88,000	22	86,000	22	81,000	22	81,000	22	27,000
23	23,000	23	88,000	23	84,000	23	73,000	23	57,000	23	112,000
24	37,000	24	46,000	24	65,000	24	72,000	24	7,000	24	112,000
25	75,000	25	48,000	25	56,000	25	73,000	25	42,000	25	112,000
26	75,000	26	88,000	26	26,000	26	73,000	26	70,000	26	112,000
27	38,000	27	88,000	27	15,000	27	73,000	27	70,000	27	112,000
28	0	28	97,000	28	87,000	28	73,000	28	70,000	28	112,000
29	23,000	29	101,000	29	87,000	29	73,000	29	70,000	29	112,000
30	63,000	30	99,000	30	87,000	30	72,000	30	70,000	30	73,000
31	73,000	31	68,000			31	61,000			31	101,000
Total Monthly Flow (gallons)	1,861,000		2,121,000		2,116,000		1,869,000		1,939,000		2,074,000
Average Daily Flow (gallons)	60,032		68,419		70,533		60,290		64,633		66,903
Average Flow during actual plant run time (gpm)	41.7		47.5		49.0		41.9		44.9		46.5

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

JANUARY 1999		FEBRUARY 1999		MARCH 1999		APRIL 1999		MAY 1999		JUNE 1999	
DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)
1	101,000	1	95,000	1	117,000	1	113,000	1	95,000	1	117,000
2	70,000	2	66,000	2	118,000	2	101,000	2	95,000	2	117,000
3	0	3	96,000	3	119,000	3	112,000	3	95,000	3	117,000
4	0	4	90,000	4	118,000	4	112,000	4	95,000	4	117,000
5	35,000	5	94,000	5	47,000	5	112,000	5	95,000	5	121,000
6	108,000	6	94,000	6	16,000	6	112,000	6	95,000	6	121,000
7	108,000	7	94,000	7	105,000	7	112,000	7	83,000	7	121,000
8	86,000	8	87,000	8	105,000	8	102,000	8	83,000	8	118,000
9	98,000	9	99,000	9	105,000	9	68,000	9	83,000	9	118,000
10	98,000	10	99,000	10	105,000	10	81,000	10	73,000	10	128,000
11	98,000	11	99,000	11	105,000	11	34,000	11	83,000	11	121,000
12	98,000	12	108,000	12	100,000	12	108,000	12	83,000	12	118,000
13	98,000	13	113,000	13	100,000	13	108,000	13	83,000	13	118,000
14	92,000	14	113,000	14	100,000	14	102,000	14	83,000	14	128,000
15	54,000	15	113,000	15	100,000	15	102,000	15	83,000	15	119,000
16	90,000	16	113,000	16	100,000	16	98,000	16	83,000	16	53,000
17	90,000	17	113,000	17	100,000	17	102,000	17	83,000	17	99,000
18	90,000	18	107,000	18	75,000	18	101,000	18	79,000	18	97,000
19	90,000	19	104,000	19	107,000	19	102,000	19	56,000	19	97,000
20	90,000	20	104,000	20	107,000	20	102,000	20	75,000	20	97,000
21	90,000	21	108,000	21	107,000	21	102,000	21	75,000	21	97,000
22	92,000	22	108,000	22	107,000	22	102,000	22	79,000	22	97,000
23	93,000	23	108,000	23	107,000	23	78,000	23	79,000	23	91,000
24	93,000	24	108,000	24	107,000	24	88,000	24	79,000	24	78,000
25	93,000	25	108,000	25	107,000	25	71,000	25	79,000	25	91,000
26	98,000	26	108,000	26	84,000	26	88,000	26	79,000	26	88,000
27	98,000	27	108,000	27	113,000	27	86,000	27	79,000	27	71,000
28	98,000	28	108,000	28	112,000	28	61,000	28	79,000	28	88,000
29	90,000			29	28,000	29	60,000	29	79,000	29	76,000
30	94,000			30	113,000	30	88,000	30	79,000	30	88,000
31	95,000			31	113,000			31	79,000		
Total Monthly Flow (gallons)	2,628,000		2,865,000		3,047,000		2,808,000		2,548,000		3,107,000
Average Daily Flow (gallons)	87,600		102,321		98,290		93,600		82,194		100,226
Average Flow during actual plant run time (gpm)	60.8		71.1		68.3		65.0		57.1		75.0

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

JULY 1999		AUGUST 1999		SEPTEMBER 1999		OCTOBER 1999		NOVEMBER 1999		DECEMBER 1999	
DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW (gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)	DATE	FLOW(gpd)
1	74,000	1	104,000	1	77,000	1	58,000	1	60,000	1	72,000
2	0	2	100,000	2	77,000	2	58,000	2	96,000	2	72,000
3	0	3	106,000	3	77,000	3	58,000	3	85,000	3	53,000
4	0	4	106,000	4	77,000	4	58,000	4	85,000	4	79,000
5	0	5	105,000	5	77,000	5	55,000	5	64,000	5	76,000
6	0	6	104,000	6	77,000	6	92,000	6	64,000	6	79,000
7	83,000	7	101,000	7	77,000	7	92,000	7	63,000	7	79,000
8	87,000	8	104,000	8	77,000	8	92,000	8	48,000	8	79,000
9	96,000	9	104,000	9	77,000	9	92,000	9	79,000	9	79,000
10	96,000	10	95,000	10	77,000	10	95,000	10	89,000	10	77,000
11	0	11	0	11	77,000	11	0	11	89,000	11	81,000
12	0	12	0	12	77,000	12	0	12	100,000	12	81,000
13	96,000	13	100,000	13	77,000	13	93,000	13	98,000	13	80,000
14	96,000	14	95,000	14	77,000	14	95,000	14	89,000	14	77,000
15	96,000	15	102,000	15	77,000	15	96,000	15	98,000	15	68,000
16	106,000	16	100,000	16	77,000	16	94,000	16	96,000	16	68,000
17	116,000	17	99,000	17	77,000	17	96,000	17	98,000	17	80,000
18	116,000	18	99,000	18	77,000	18	96,000	18	98,000	18	81,000
19	87,000	19	97,000	19	77,000	19	63,000	19	68,000	19	81,000
20	87,000	20	96,000	20	77,000	20	62,000	20	96,000	20	81,000
21	87,000	21	96,000	21	77,000	21	63,000	21	96,000	21	81,000
22	87,000	22	96,000	22	77,000	22	65,000	22	96,000	22	78,000
23	114,000	23	93,000	23	77,000	23	67,000	23	84,000	23	72,000
24	114,000	24	93,000	24	77,000	24	67,000	24	82,000	24	80,000
25	114,000	25	93,000	25	77,000	25	67,000	25	87,000	25	80,000
26	114,000	26	93,000	26	77,000	26	67,000	26	84,000	26	80,000
27	107,000	27	94,000	27	77,000	27	67,000	27	84,000	27	81,000
28	107,000	28	94,000	28	77,000	28	55,000	28	84,000	28	81,000
29	107,000	29	94,000	29	77,000	29	39,000	29	84,000	29	81,000
30	107,000	30	93,000	30	77,000	30	59,000	30	83,000	30	75,000
31	106,000	31	94,000			31	60,000			31	78,000
Total Monthly Flow (gallons)	2,400,000		2,850,000		2,310,000		2,121,000		2,527,000		2,390,000
Average Daily Flow (gallons)	77,419		101,786		77,000		68,419		81,516		77,097
Average Flow during actual plant run time (gpm)	69.4		68.2		53.5		50.8		58.5		53.5

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

JANUARY 2000		FEBRUARY 2000		MARCH 2000		APRIL 2000		MAY 2000		JUNE 2000	
DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)
1	86,000	1	82,000	1	66,000	1	91,000	1	71,000	1	85,000
2	86,000	2	83,000	2	66,000	2	91,000	2	67,000	2	85,000
3	84,000	3	81,000	3	64,000	3	88,000	3	71,000	3	83,000
4	86,000	4	83,000	4	66,000	4	91,000	4	73,000	4	85,000
5	86,000	5	83,000	5	66,000	5	91,000	5	73,000	5	85,000
6	86,000	6	83,000	6	66,000	6	91,000	6	73,000	6	85,000
7	33,000	7	83,000	7	66,000	7	91,000	7	73,000	7	98,000
8	43,000	8	71,000	8	66,000	8	91,000	8	73,000	8	98,000
9	43,000	9	73,000	9	63,000	9	91,000	9	65,000	9	91,000
10	43,000	10	73,000	10	63,000	10	78,000	10	73,000	10	91,000
11	43,000	11	73,000	11	63,000	11	78,000	11	73,000	11	91,000
12	43,000	12	58,000	12	63,000	12	78,000	12	72,000	12	91,000
13	43,000	13	58,000	13	63,000	13	78,000	13	73,000	13	91,000
14	89,000	14	58,000	14	63,000	14	78,000	14	68,000	14	91,000
15	89,000	15	66,000	15	69,000	15	78,000	15	68,000	15	91,000
16	89,000	16	66,000	16	69,000	16	78,000	16	65,000	16	91,000
17	89,000	17	66,000	17	69,000	17	78,000	17	68,000	17	91,000
18	89,000	18	66,000	18	101,000	18	74,000	18	67,000	18	56,000
19	89,000	19	66,000	19	101,000	19	75,000	19	68,000	19	56,000
20	89,000	20	66,000	20	101,000	20	75,000	20	68,000	20	56,000
21	70,000	21	66,000	21	101,000	21	75,000	21	68,000	21	56,000
22	87,000	22	65,000	22	101,000	22	75,000	22	68,000	22	56,000
23	87,000	23	66,000	23	101,000	23	75,000	23	55,000	23	56,000
24	87,000	24	58,000	24	85,000	24	70,000	24	54,000	24	56,000
25	87,000	25	58,000	25	85,000	25	70,000	25	55,000	25	56,000
26	87,000	26	73,000	26	85,000	26	70,000	26	55,000	26	56,000
27	87,000	27	76,000	27	85,000	27	70,000	27	55,000	27	56,000
28	83,000	28	76,000	28	85,000	28	63,000	28	50,000	28	56,000
29	83,000	29	76,000	29	85,000	29	43,000	29	32,000	29	56,000
30	83,000			30	85,000	30	73,000	30	55,000	30	56,000
31	83,000			31	85,000			31	55,000	31	56,000
Total Monthly Flow (gallons)	2,352,000		2,052,000		2,227,000		2,275,000		2,004,000		2,307,000
Average Daily Flow (gallons)	75,871		70,759		71,839		75,833		64,645		74,419
Average Flow during actual plant run time (gpm)	54.0		49.0		54.0		55.0		46.0		52.0

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

JULY 2000		AUGUST 2000		SEPTEMBER 2000		OCTOBER 2000		NOVEMBER 2000		DECEMBER 2000	
DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)
1	85,000	1	102,000	1	78,000	1	73,000	1	84,000	1	116,000
2	85,000	2	102,000	2	78,000	2	67,000	2	81,000	2	116,000
3	85,000	3	102,000	3	78,000	3	66,000	3	84,000	3	116,000
4	85,000	4	102,000	4	78,000	4	72,000	4	84,000	4	116,000
5	85,000	5	76,000	5	78,000	5	73,000	5	84,000	5	48,000
6	85,000	6	94,000	6	65,000	6	79,000	6	78,000	6	48,000
7	85,000	7	94,000	7	65,000	7	79,000	7	78,000	7	44,000
8	85,000	8	94,000	8	65,000	8	79,000	8	76,000	8	66,000
9	85,000	9	94,000	9	65,000	9	79,000	9	78,000	9	66,000
10	85,000	10	94,000	10	65,000	10	79,000	10	78,000	10	66,000
11	85,000	11	94,000	11	65,000	11	79,000	11	78,000	11	66,000
12	55,000	12	94,000	12	65,000	12	79,000	12	78,000	12	66,000
13	0	13	94,000	13	65,000	13	79,000	13	78,000	13	65,000
14	21,000	14	94,000	14	65,000	14	79,000	14	78,000	14	66,000
15	64,000	15	94,000	15	65,000	15	79,000	15	78,000	15	65,000
16	86,000	16	76,000	16	62,000	16	94,000	16	94,000	16	68,000
17	86,000	17	76,000	17	62,000	17	94,000	17	94,000	17	68,000
18	88,000	18	76,000	18	62,000	18	94,000	18	94,000	18	68,000
19	88,000	19	76,000	19	62,000	19	94,000	19	94,000	19	68,000
20	88,000	20	76,000	20	62,000	20	94,000	20	94,000	20	68,000
21	88,000	21	76,000	21	66,000	21	94,000	21	94,000	21	68,000
22	88,000	22	78,000	22	66,000	22	94,000	22	94,000	22	63,000
23	88,000	23	78,000	23	66,000	23	94,000	23	94,000	23	63,000
24	88,000	24	78,000	24	66,000	24	82,000	24	82,000	24	63,000
25	98,000	25	78,000	25	66,000	25	84,000	25	84,000	25	63,000
26	98,000	26	78,000	26	91,000	26	84,000	26	84,000	26	63,000
27	98,000	27	78,000	27	91,000	27	84,000	27	84,000	27	63,000
28	96,000	28	78,000	28	91,000	28	84,000	28	84,000	28	63,000
29	98,000	29	78,000	29	91,000	29	84,000	29	84,000	29	61,000
30	98,000	30	78,000	30	91,000	30	84,000	30	84,000	30	63,000
31	98,000	31	78,000							31	63,000
Total Monthly Flow (gallons)	2,547,000		2,660,000		2,135,000		2,479,000		2,533,000		2,166,000
Average Daily Flow (gallons)	82,161		85,806		68,871		79,968		81,710		69,871
Average Flow during actual plant run time (gpm)	56.0		60.0		48.0		57.0		57.0		49.0

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 7
Groundwater Treatment System Flow Summary
Wayne Reclamation and Recycling
Columbia City, Indiana

JANUARY 2001		FEBRUARY 2001		MARCH 2001		APRIL 2001		MAY 2001		JUNE 2001	
DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)
1	55,000	1	101,000	1	99,000	1	85,000	1	73,000	1	65,000
2	55,000	2	101,000	2	71,000	2	85,000	2	73,000	2	65,000
3	55,000	3	101,000	3	99,000	3	85,000	3	73,000	3	65,000
4	55,000	4	101,000	4	99,000	4	77,000	4	73,000	4	65,000
5	55,000	5	101,000	5	99,000	5	78,000	5	73,000	5	65,000
6	55,000	6	101,000	6	99,000	6	78,000	6	73,000	6	65,000
7	55,000	7	101,000	7	99,000	7	78,000	7	57,000	7	51,000
8	55,000	8	101,000	8	99,000	8	78,000	8	76,000	8	82,000
9	55,000	9	90,000	9	99,000	9	78,000	9	76,000	9	82,000
10	53,000	10	101,000	10	99,000	10	78,000	10	76,000	10	82,000
11	55,000	11	109,000	11	102,000	11	78,000	11	76,000	11	82,000
12	55,000	12	109,000	12	102,000	12	60,000	12	76,000	12	82,000
13	55,000	13	109,000	13	102,000	13	78,000	13	76,000	13	82,000
14	55,000	14	109,000	14	102,000	14	78,000	14	76,000	14	62,000
15	55,000	15	109,000	15	102,000	15	78,000	15	76,000	15	62,000
16	55,000	16	109,000	16	96,000	16	78,000	16	76,000	16	62,000
17	55,000	17	109,000	17	96,000	17	78,000	17	76,000	17	62,000
18	55,000	18	109,000	18	96,000	18	74,000	18	48,000	18	62,000
19	50,000	19	109,000	19	96,000	19	79,000	19	30,000	19	62,000
20	80,000	20	109,000	20	96,000	20	89,000	20	68,000	20	62,000
21	80,000	21	109,000	21	82,000	21	94,000	21	68,000	21	62,000
22	80,000	22	101,000	22	44,000	22	94,000	22	68,000	22	60,000
23	80,000	23	101,000	23	86,000	23	94,000	23	68,000	23	60,000
24	80,000	24	101,000	24	96,000	24	76,000	24	68,000	24	60,000
25	80,000	25	101,000	25	96,000	25	89,000	25	68,000	25	60,000
26	80,000	26	101,000	26	96,000	26	89,000	26	68,000	26	60,000
27	60,000	27	101,000	27	96,000	27	89,000	27	68,000	27	60,000
28	57,000	28	101,000	28	96,000	28	89,000	28	68,000	28	60,000
29	22,000			29	96,000	29	89,000	29	68,000	29	60,000
30	80,000			30	96,000	30	89,000	30	68,000	30	60,000
31	76,000			31	96,000			31	68,000		
Total Monthly Flow (gallons)	1,893,000		2,905,000		2,932,000		2,462,000		2,149,000		1,969,000
Average Daily Flow (gallons)	61,065		103,750		94,581		82,067		69,323		65,633
Average Flow during actual plant run time (gpm)	45.0		72.0		68.0		58.0		50.0		46.0

Notes:

1. gpd = gallons per day.
2. gpm = gallons per minute.

Table 8
Summary of Groundwater Elevations
Wayne Reclamation and Recycling
Columbia City, Indiana

Well Number	TOIC Elevations July 2001	Jan-01 Elevations Sys. On	Feb-01 Elevations Sys. On	Mar-01 Elevations Sys. On	Apr-01 Elevations Sys. On	May-01 Elevations Sys. On	Jun-01 Elevations Sys. On
MW-1D	826.08	---	---	---	812.62	---	---
MW-2S	825.46	808.76	809.87	809.75	810.25	809.80	808.94
MW-3S	824.06	808.35	809.11	809.00	809.65	809.21	808.67
MW-4S	843.06	---	---	---	811.77	---	---
MW-5S	833.02	---	---	---	813.07	---	---
MW-7S	836.13	---	---	---	811.63	---	---
MW-8D	834.11	---	---	---	812.81	---	---
MW-8S	835.52	---	---	---	812.47	---	---
MW-9S	825.44	---	---	---	811.89	---	---
MW-10S	823.15	808.55	809.43	809.38	809.91	809.63	808.87
MW-11S	825.23	809.05	809.89	809.35	810.33	809.09	809.26
MW-13S	826.81	811.29	811.87	811.53	811.96	811.16	811.32
MW-13D	826.08	---	---	---	811.62	---	---
MW-14S	821.30	---	---	---	811.70	---	---
MW-15S	827.64	---	---	---	812.42	---	---
MW-16S	827.41	---	---	---	812.55	---	---
MW-17S	826.56	---	---	---	812.69	---	---
MW-18S	824.13	---	---	---	811.53	---	---
MW-19S	832.68	---	---	---	812.68	---	---
P-1	834.28	---	---	---	812.16	---	---
P-2	825.49	---	---	---	812.09	---	---
P-3	823.48	---	---	---	812.13	---	---
P-4	822.67	---	---	---	812.09	---	---
MW-83DS	825.21	810.61	811.55	810.50	811.69	810.11	810.96
MW-83DD	825.30	---	---	---	811.34	---	---
MW-83AS	826.13	808.57	809.66	809.54	809.97	809.62	808.76
MW-83AD	826.15	809.59	810.79	809.61	811.05	809.37	810.14
MW-83B	840.55	---	---	---	811.85	---	---

Notes:

1. TOIC - Top of Inner Well Casing.
2. Depth to Groundwater Measured in feet below TOIC.
3. "----" = No data available.
4. P - piezometer.
5. Prior to 2001, TOIC elevations based on Ayres-Lewis-Norris-May, Inc. survey on 10/10/97.
6. TOIC elevations based on Benchmark Surveying, Inc. survey on 7/2/01.

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number						
	MWID (SE Area)						
Date Sampled	8/1988	6/7/96	11/6/96	6/12/97	10/14/98	10/13/99	10/2/00
VOCs							
Acetone	ND	ND	NA	NA	NA	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	NA	NA	NA	ND	ND
2-Butanone	ND	ND	NA	NA	NA	NA	NA
Carbon Disulfide	ND	ND	NA	NA	NA	ND	ND
Chloroethane	ND	ND	NA	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND
Total 1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	NA	NA	NA	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	ND	NA	NA	NA	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	NA	NA	NA	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND
Metals							
Arsenic	0.0059	0.005	ND	ND	ND	ND	ND
Barium	0.132	0.13	0.13	0.12	0.16	0.68	0.14
Cadmium	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	0.013	ND	ND
Cyanide, Total	0.009	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	0.051	ND	ND	ND
Zinc	0.013	0.06	ND	0.025	0.031	0.13	ND

- Notes
1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
 2. VOCs are reported in micrograms per liter (ug/L)
 3. Metals are reported in milligrams per liter (mg/L)
 4. ND = Not detected above the method detection limit
 4. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW3S (SE area)								
	3/1988	8/1988	11/29/95	8/27/96	11/6/96	6/13/97	10/14/98	10/13/99	10/2/00
VOCs									
Acetone	ND	ND	NA	NA	NA	NA	NA	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	ND	ND	NA	NA	NA	ND	ND
2-Butanone	ND	ND	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	2.3	NA	NA	NA	NA	NA	ND	ND
Chloroethane	ND	ND	ND	ND	NA	ND	ND	ND	ND
1,1-Dichloroethane	ND	23	ND	ND	1.5	ND	ND	ND	ND
1,1-Dichloroethene	ND	16	ND	ND	1.9	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total 1,2-Dichloroethene	24000	6900	2200	3610	2692	1245	1154	1433	878
1,2-Dichloropropane	ND	8.4	ND	ND	3.7	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	NA	NA	NA	NA	NA	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	ND	ND	ND	NA	NA	NA	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	1.1	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	NA	NA	NA	ND	ND
Vinyl Chloride	1300	430	380	400	260	90	120	310	67
Benzene	ND	1.1	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	3.4	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals									
Arsenic	0.015	0.0234	0.005	ND	ND	ND	ND	0.011	ND
Barium	0.306	0.32	0.08	0.04	ND	ND	0.048	0.28	0.032
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	0.015	ND	ND	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	0.0151	ND	ND	ND	ND	ND	ND	0.013
Zinc	ND	0.0126	ND	ND	ND	ND	ND	0.27	ND

Notes:

1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
2. VOCs are reported in micrograms per liter (ug/L)
3. Metals are reported in milligrams per liter (mg/L)
4. ND = Not detected above the method detection limit
5. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW4S (RW4 Area)												
	8/1988	7/23/92	11/28/95	8/27/96	6/12/97	11/18/97	4/21/98	10/15/98	4/12/99	10/14/99	5/4/00	10/2/00	4/19/01
VOCs													
Acetone	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis- 1,2- Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
trans- 1,2- Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Total 1,2-Dichloroethene	ND	ND	ND	4.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	1	ND	ND	ND	ND	12	15	17	29	33	23	13
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals													
Arsenic	NA	ND	0.006	ND	ND	ND	ND	ND	ND	0.0082	ND	0.0081	ND
Barium	NA	0.159	0.13	0.11	0.67	0.28	0.48	0.3	0.49	0.58	0.79	1.1	1.1
Cadmium	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	NA	ND	ND	0.0032	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.011
Zinc	NA	0.035	0.02	ND	0.036	ND	ND	0.023	0.025	ND	ND	ND	0.022

- Notes:
1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
 2. VOCs are reported in micrograms per liter (ug/L)
 3. Metals are reported in milligrams per liter (mg/L)
 4. ND = Not detected above the method detection limit
 5. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number								
	MW7S (RW4 Area)								
Date Sampled	3/1988	8/1988	11/29/95	8/27/96	11/6/96	6/12/97	10/15/98	10/13/99	10/2/00
VOCs									
Acetone	ND	ND	NA	NA	NA	NA	NA	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	ND	NA	NA	NA	NA	NA	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	23	7.4	10	7.4	5.1	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total 1,2-Dichloroethene	2600	1900	1159	1054	855	688	110	76	132
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	NA	NA	NA	NA	NA	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	3.2	92	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	1.3	ND	ND	ND	ND	ND	6.1	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals									
Arsenic	0.005	0.003	ND	ND	ND	ND	ND	ND	ND
Barium	0.286	0.191	0.17	0.12	0.16	0.16	0.2	0.77	0.22
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	ND	0.016	0.095	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	0.0099	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	0.06	ND	ND	ND	ND	0.006
Zinc	ND	0.0263	ND	0.02	ND	ND	ND	0.22	ND

- Notes:
1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
 2. VOCs are reported in micrograms per liter (ug/L)
 3. Metals are reported in milligrams per liter (mg/L)
 4. ND = Not detected above the method detection limit
 5. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW9S (AST Area)													
	3/1988	8/1988	7/24/92	11/7/95	8/27/96	6/12/97	11/18/97	4/21/98	10/15/98	4/12/99	10/20/99	5/4/00	10/2/00	4/19/01
VOCs														
Acetone	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	ND	4.2	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	0.59	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	8.3	ND	18	ND	13	ND	16	17	12	5.5	59	13	ND
1,1-Dichloroethene	ND	92	ND	56	ND	15	76	17	51	13	18	67	63	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis- 1,2 - Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5400
trans- 1,2 - Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Total 1,2-Dichloroethene	33000	32,000	23000	30140	24000	18200	42390	10190	19170	8895	8003	43350	37000	5400
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	2.2	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	9.9	ND	ND	ND	ND	ND	13	21	13	ND	5.6	6.8	ND
1,1,2-Trichloroethane	ND	ND	ND	2.8	ND	ND	ND	8	12	ND	ND	6.4	ND	ND
Dibromomethane	ND	ND	NA	1.8	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	27	ND	36	ND	78	220	280	250	720	67	37	97	ND
Trichloroethene	18000	18,000	9700	17000	28000	24000	67000	25000	12000	16000	5800	5800	21000	16000
1,2,4-Trimethylbenzene	ND	ND	NA	4.3	ND	ND	NA	ND	ND	6.2	ND	ND	ND	ND
Vinyl Chloride	ND	480	340	1100	680	200	380	59	ND	72	140	260	140	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	21	ND	ND	ND	ND	ND	ND	8.5	9.7	22	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.3	ND	ND	ND	ND
Metals														
Arsenic	0.008	0.0106	0.011	0.01	0.006	ND	ND	ND	ND	0.026	ND	0.0051	ND	
Barium	0.181	0.139	0.144	0.11	0.04	ND	ND	0.035	0.079	0.04	0.059	0.08	0.055	0.027
Cadmium	ND	ND	271	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0052	ND	ND	ND
Cyanide, Total	0.03	0.014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	0.0031	ND	ND	0.042	ND	ND	0.0026	ND	ND	ND
Nickel	ND	0.0106	ND	ND	ND	ND	ND	ND	ND	ND	0.027	ND	0.032	0.0073
Zinc	ND	0.0212	0.015	ND	ND	0.023	0.03	ND	ND	ND	0.062	ND	ND	ND

- Notes:
- In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
 - VOCs are reported in micrograms per liter (µg/L)
 - Metals are reported in milligrams per liter (mg/L)
 - ND = Not detected above the method detection limit
 - NA = Not analyzed
 - See Insite MW9S Report in Appendix B for additional data between 8/99 and 10/99.

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW10S (SE Area)												
	3/1988	8/1988	7/23/92	11/8/95	8/27/96	11/18/97	4/21/98	10/15/98	4/12/99	10/13/99	5/4/00	10/2/00	4/19/01
VOCs													
Acetone	ND	ND	ND	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	4.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND
2-Butanone	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	ND	ND	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	630	140	91	ND	ND	ND	28	6.3	7.9	ND	5.7	ND	ND
1,1-Dichloroethene	ND	20	ND	ND	ND	ND	ND	ND	6.8	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis- 1,2- Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1900
trans- 1,2- Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130
Total 1,2-Dichloroethene	56000	26000	8700	37440	15350	8140	5400	3470	8100	12000	3770	3500	2030
1,2-Dichloropropane	ND	ND	ND	6.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	ND	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	2	ND	5	70	ND	ND	11	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND
Vinyl Chloride	5500	2800	3100	2700	650	370	130	1000	320	700	ND	120	ND
Benzene	ND	7	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	4	ND	5.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	3500	9000	270	50	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	28	96	21.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals													
Arsenic	0.009	ND	ND	0.006	0.002	ND	ND	ND	ND	ND	ND	ND	ND
Barium	0.239	0.0537	0.137	0.04	0.04	0.062	ND	0.032	0.023	0.36	0.068	0.033	0.047
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	0.017	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	0.006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0094
Lead	ND	ND	ND	ND	0.0028	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	0.021	ND	ND	0.021	ND	ND	ND	ND	ND	0.009	0.0052
Zinc	ND	0.0089	ND	ND	ND	ND	ND	ND	ND	0.34	ND	ND	ND

- Notes:
1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
 2. VOCs are reported in micrograms per liter (µg/L)
 3. Metals are reported in milligrams per liter (mg/L)
 4. ND = Not detected above the method detection limit
 5. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number									
	MW11S (SE Area)									
Date Sampled	3/1988	8/1988	7/24/92	11/8/95	8/27/96	11/6/96	6/13/97	10/15/98	10/13/99	10/2/00
VOCs										
Acetone	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND
2-Butanone	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND
Chloroethane	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	19	5.3	8.3	6.6	ND	5.4	5.7
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total 1,2-Dichloroethene	44	19	ND	295	156.5	210	180	160	440	472
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	4.1	17	3.8	4.3	8	ND	6.2
1,2,4-Trimethylbenzene	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND
Vinyl Chloride	4	3	20	18	12	14	18	64	190	160
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	1.5	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals										
Arsenic	ND	ND	ND	0.001	ND	ND	ND	ND	ND	ND
Barium	0.418	0.285	0.17	0.11	0.05	ND	ND	0.042	0.082	0.059
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	ND	0.04	ND	ND	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	0.0028	ND	ND	0.015	ND	ND
Nickel	ND	ND	ND	ND	0.03	ND	ND	ND	ND	0.006
Zinc	0.026	0.0145	0.122	ND	ND	ND	0.021	ND	0.025	ND

Notes:

1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
2. VOCs are reported in micrograms per liter (ug/L)
3. Metals are reported in milligrams per liter (mg/L)
4. ND = Not detected above the method detection limit
5. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW14S (AST Area)												
	8/1988	7/23/92	11/7/95	8/27/96	6/11/97	11/18/97	4/21/98	10/15/98	4/12/99	10/14/99	5/4/00	10/2/00	4/19/01
VOCs													
Acetone	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND
2-Butanone	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND
Chloroethane	ND	ND	5.4	22	6.6	6.6	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	270	86	320	260	150	160	74	63	19	21	12	13	5.7
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	1.1	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis- 1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans- 1,2- Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 1,2-Dichloroethene	650	71	45	20	3.9	2.3	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	5	10	9.1	4.9	2.6	ND	ND	5.2	ND	ND	ND	14
1,1,2-Trichloroethane	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	5.5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND
Vinyl Chloride	140	47	15	5.4	1.1	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals													
Arsenic	0.0054	0.0077	0.014	0.004	ND	ND	ND	ND	0.0079	ND	0.021	ND	
Barium	0.0891	0.062	0.05	0.05	0.066	0.069	0.066	0.084	0.056	0.1	0.095	0.11	0.07
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	0.035	0.006	ND	ND	ND	ND	0.0078	ND	0.017	ND	ND	0.009	ND
Lead	ND	ND	ND	0.0065	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	0.02	0.027	0.026	0.022	ND	ND	ND	ND	0.009	0.016
Zinc	0.0035	0.021	ND	ND	0.026	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
2. VOCs are reported in micrograms per liter (ug/L)
3. Metals are reported in milligrams per liter (mg/L)
4. ND = Not detected above the method detection limit
5. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW15S (AST)				
	8/6/92	11/29/95	6/12/97	10/14/99	10/2/00
VOCs					
Acetone	ND	NA	NA	ND	ND
Bromomethane	ND	ND	ND	ND	ND
n-Butylbenzene	NA	ND	ND	ND	ND
2-Butanone	ND	NA	NA	NA	NA
Carbon Disulfide	ND	NA	NA	ND	ND
Chloroethane	ND	ND	ND	ND	ND
1,1-Dichloroethane	6	5.8	4.9	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND
Total 1,2-Dichloroethene	10	13	43.5	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	NA	NA	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND
Dibromomethane	NA	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	65	5.8	11
1,2,4-Trimethylbenzene	NA	ND	ND	ND	ND
Vinyl Chloride	ND	28	2.3	ND	ND
Benzene	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND
Toluene	ND	1.1	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND
Metals					
Arsenic	0.0196	ND	ND	0.0059	ND
Barium	0.219	0.14	0.053	0.086	0.097
Cadmium	0.015	ND	ND	ND	ND
Chromium, Total	ND	0.011	ND	ND	ND
Cyanide, Total	ND	ND	ND	ND	ND
Lead	ND	ND	0.0038	ND	ND
Nickel	ND	ND	ND	ND	0.007
Zinc	0.047	ND	0.055	ND	ND

Notes:

1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
2. VOCs are reported in micrograms per liter (ug/L)
3. Metals are reported in milligrams per liter (mg/L)
4. ND = Not detected above the method detection limit
5. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW16S (AST Area)						
	8/6/92	11/7/95	11/6/96	6/11/97	10/15/98	10/14/99	10/2/00
VOCs							
Acetone	ND	NA	NA	NA	NA	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	NA	ND	NA	NA	NA	ND	ND
2-Butanone	ND	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	NA	NA	NA	NA	ND	ND
Chloroethane	ND	ND	NA	ND	ND	ND	ND
1,1-Dichloroethane	55	85	26	58	37	38	54
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	1.4	ND	ND	ND	ND	ND
Total 1,2-Dichloroethene	41	190	51.3	80.3	130	93	155.5
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	NA	NA	NA	NA	ND	ND
1,1,1-Trichloroethane	8	2.7	1	2.9	ND	6.9	15
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	NA	ND	NA	NA	NA	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	6.9	ND	ND	47	ND	ND
1,2,4-Trimethylbenzene	NA	ND	NA	NA	NA	ND	ND
Vinyl Chloride	100	41	19	16	37	15	8.7
Benzene	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND
Metals							
Arsenic	0.0025	0.003	ND	ND	ND	ND	ND
Barium	0.05	0.06	0.065	ND	0.054	0.059	0.057
Cadmium	ND	ND	ND	0.00024	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	ND	ND	ND	0.011	ND	ND	0.016
Lead	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND	0.008
Zinc	0.038	ND	ND	0.028	ND	ND	ND

- Notes:
1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that to
 2. VOCs are reported in micrograms per liter (ug/L)
 3. Metals are reported in milligrams per liter (mg/L)
 4. ND = Not detected above the method detection limit
 5. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW83A (D) (SE Area)								
	3/1988	8/1988	7/31/92	11/8/95	11/6/96	6/13/97	10/15/98	10/14/99	10/2/00
VOCs									
Acetone	ND	ND	ND	NA	NA	NA	NA	NA	NA
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	NA	ND	NA	NA	NA	ND	ND
2-Butanone	ND	ND	ND	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	ND	ND	NA	NA	NA	NA	ND	ND
Chloroethane	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.6	ND	1.5	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis- 1, 2- Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans- 1, 2- Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 1,2-Dichloroethene	ND	7.2	10	140	88	60	38	33	8.9
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	ND	NA	NA	NA	NA	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	ND	NA	ND	NA	NA	NA	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	NA	ND	NA	NA	NA	ND	ND
Vinyl Chloride	4	38	3	110	73	54	8.8	35	16
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	0.9	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals									
Arsenic	NA	NA	ND	0.004	ND	ND	ND	ND	ND
Barium	NA	NA	0.022	0.25	0.24	0.27	0.17	0.19	0.17
Cadmium	NA	NA	0.005	ND	ND	ND	ND	ND	ND
Chromium, Total	NA	NA	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	NA	NA	0.07	ND	ND	0.014	ND	ND	ND
Lead	NA	NA	ND	ND	ND	ND	ND	ND	ND
Nickel	NA	NA	ND	ND	ND	ND	ND	ND	0.004
Zinc	NA	NA	ND	0.01	ND	0.02	0.022	0.02	ND

- Notes:
1. In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
 2. VOCs are reported in micrograms per liter (ug/L)
 3. Metals are reported in milligrams per liter (mg/L)
 4. ND = Not detected above the method detection limit
 5. NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW83A (S) (SE Area)													
	3/1988	8/1988	7/23/92	11/8/95	8/27/96	6/13/97	11/18/97	4/21/98	10/15/98	4/12/99	10/13/99	5/4/00	10/2/00	4/19/01
VOCs														
Acetone	ND	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ND	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	5.1	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	48	72	51	56	ND	42	39	43	38	26	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	4.1	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis- 1,2- Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	750
trans- 1,2- Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Total 1,2-Dichloroethene	ND	ND	12000	15068	15110	11056	8700	5200	1332	4021	3417	2214	1506	750
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND
Vinyl Chloride	110	140	1200	1700	1600	1400	1400	900	610	990	830	550	380	220
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals														
Arsenic	ND	ND	ND	0.003	ND	0.0022	ND	ND	ND	ND	ND	ND	ND	ND
Barium	0.186	0.117	0.111	0.18	0.09	ND	ND	0.048	0.055	0.088	0.09	0.094	0.068	0.063
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	ND	0.022	0.006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002	ND
Zinc	ND	0.0054	ND	ND	ND	0.041	ND	ND	ND	ND	ND	ND	ND	ND

- Notes:
- In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total
 - VOCs are reported in micrograms per liter (ug/L)
 - Metals are reported in milligrams per liter (mg/L)
 - ND = Not detected above the method detection limit
 - NA = Not analyzed

Table 9
Monitoring Well Sample Results
Wayne Reclamation and Recycling
Columbia City, Indiana

Parameter	Monitoring Well Number MW83B (NE Area)						
	3/1988	7/31/92	6/7/96	11/6/96	6/12/97	10/14/99	10/2/00
VOCs							
Acetone	270	ND	ND	NA	NA	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	NA	ND	NA	NA	ND	ND
2-Butanone	23	ND	ND	NA	NA	NA	NA
Carbon Disulfide	ND	NA	ND	NA	NA	ND	ND
Chloroethane	ND	ND	ND	NA	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND
Total 1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	ND	ND	ND	NA	NA	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	NA	ND	NA	NA	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	NA	ND	NA	NA	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND
Metals							
Arsenic	ND	ND	0.003	0.0031	0.0027	ND	0.0054
Barium	ND	ND	0.16	0.22	0.19	0.16	0.26
Cadmium	ND	0.005	ND	ND	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	ND	ND	ND
Cyanide, Total	ND	0.019	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	0.02	0.021	ND	ND	ND
Zinc	ND	ND	0.1	0.081	0.029	ND	ND

Notes:

1. In samples where total 1,2-dichloroethene has been listed, *cis*-1,2-dichloroethene is included in that total.
2. VOCs are reported in micrograms per liter (ug/L)
3. Metals are reported in milligrams per liter (mg/L)
4. ND = Not detected above the method detection limit
5. NA = Not analyzed

Table 10
Wayne Reclamation and Recycling
Columbia City, Indiana
Recovery Well Analytical Results
Detected Volatile Organic Compounds

Parameter	RW1					RW2				
	8/27/96	11/6/96	6/11/97	11/18/97	4/21/98	8/27/96	11/6/96	6/11/97	11/18/97	4/21/98
Acetone	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	NA	NA	NA	ND	ND	NA	NA	NA	ND
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Chloroethane	ND	2.4	2.2	3.7	ND	ND	2.6	2.2	ND	ND
1,1-Dichloroethane	170	180	110	190	140	8.1	160	110	21	52
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	240	180	190	230	200	6.6	150	180	53	78
trans-1,2-Dichloroethene	ND	1.4	1.4	2.9	ND	ND	1.6	1.4	ND	ND
Total 1,2-Dichloroethene	240	181.4	191.4	232.9	200	6.6	151.6	181.4	53	78
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
1,1,1-Trichloroethane	22	23	20	31	19	ND	23.0	20.0	ND	6.1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	NA	NA	NA	ND	ND	NA	NA	NA	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Vinyl Chloride	170	ND	100	140	80	7.7	150	97	19	34
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Results are reported in micrograms per liter (ug/L)
2. ND = Not detected above the method detection limit
3. NA = Not analyzed
4. No data was collected during the October 1998 sampling event.

Table 10
Wayne Reclamation and Recycling
Columbia City, Indiana
Recovery Well Analytical Results
Detected Volatile Organic Compounds

Parameter	Date Sampled	RW3							RW4				
		8/27/96	11/6/96	6/12/97	11/18/97	4/21/98	8/18/99	10/19/99	8/27/96	11/6/96	6/12/97	11/18/97	4/21/98
Acetone		NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	ND
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene		ND	NA	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
2-Butanone		NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Carbon Disulfide		NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	ND
Chloroethane		ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,1-Dichloroethane		ND	3.1	2.7	4.9	ND	ND	ND	ND	2.9	1.5	2.6	ND
1,1-Dichloroethene		ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene		390	330	270	690	340	150	200	430	450	290	390	180
trans-1,2-Dichloroethene		10	5.9	6.9	15	11	ND	5.1	27	26	18	24	12
Total 1,2-Dichloroethene		400	335.9	276.9	705	351	150	205	457	476	308	414	192
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone		NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	ND
1,1,1-Trichloroethane		ND	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane		ND	NA	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene		150	130	120	240	330	96	140	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	ND
Vinyl Chloride		43	40	28	50	3.5	11.0	15.0	ND	ND	ND	ND	ND
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Results are reported in micrograms per liter (ug/L)
2. ND = Not detected above the method detection limit
3. NA = Not analyzed
4. No data was collected during the October 1998 sampling event

Table 10
Wayne Reclamation and Recycling
Columbia City, Indiana
Recovery Well Analytical Results
Detected Volatile Organic Compounds

Parameter Date Sampled	RW5					RW6				
	8/27/96	11/6/96	6/12/97	11/18/97	4/21/98	8/27/96	11/6/96	6/12/97	11/18/97	4/21/98
Acetone	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	NA	NA	NA	ND	ND	NA	NA	NA	ND
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Chloroethane	ND	NA	ND	ND	ND	ND	NA	7.5	ND	ND
1,1-Dichloroethane	ND	ND	1.1	4.0	ND	ND	ND	21	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	3.6	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	330	330	910	1900	4000	ND	ND	4500	1.0	5.7
trans-1,2-Dichloroethene	20	26	53	140	260	ND	ND	53	ND	ND
Total 1,2-Dichloroethene	350	356	963	2040	4260	ND	ND	4553.0	1.0	5.7
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	3.1	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	NA	NA	NA	ND	ND	NA	NA	NA	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	1.8	ND	15	130	ND	ND	240	ND	ND
1,2,4-Trimethylbenzene	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Vinyl Chloride	100	200	520	1600	1100	ND	ND	780	1.1	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Results are reported in micrograms per liter (ug/L)
2. ND = Not detected above the method detection limit
3. NA = Not analyzed
4. No data was collected during the October 1998 sampling event

Table 10
Wayne Reclamation and Recycling
Columbia City, Indiana
Recovery Well Analytical Results
Detected Volatile Organic Compounds

Parameter Date Sampled	RW7					RW8				
	8/27/96	11/6/96	6/12/97	11/18/97	4/21/98	8/27/96	11/6/96	6/12/97	11/18/97	4/21/98
Acetone	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	NA	NA	NA	ND	ND	NA	NA	NA	ND
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Chloroethane	ND	NA	ND	ND	ND	ND	NA	3.6	2.1	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	11	19	29	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	3.1	5.6	5.8	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	1400	ND	ND	ND
cis-1,2-Dichloroethene	2.4	910	100	520	ND	3000	1434	2800	4700	5500
trans-1,2-Dichloroethene	ND	43	2.2	12	ND	66	ND	42	44	ND
Total 1,2-Dichloroethene	2.4	953	102.2	532.0	ND	3066	1434.0	2842	4744	5500
1,2-Dichloropropane	ND	7.4	ND	2.4	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	NA	NA	NA	ND	ND	NA	NA	NA	ND
Tetrachloroethene	ND	1.0	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1.7	290	26	140	43	140	98	160	180	270
1,2,4-Trimethylbenzene	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Vinyl Chloride	ND	ND	ND	7.9	3.3	650	130	310	160	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Results are reported in micrograms per liter (ug/L)
2. ND = Not detected above the method detection limit
3. NA = Not analyzed
4. No data was collected during the October 1998 sampling event

Table 10
Wayne Reclamation and Recycling
Columbia City, Indiana
Recovery Well Analytical Results
Detected Volatile Organic Compounds

Parameter	RW9					RW10				
	8/27/96	11/6/96	6/12/97	11/18/97	4/21/98	8/27/96	11/6/96	6/12/97	11/18/97	4/21/98
Acetone	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Bromomethane	ND	ND	ND	ND	ND	1.6	ND	ND	ND	ND
n-Butylbenzene	ND	NA	NA	NA	ND	ND	NA	NA	NA	ND
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Chloroethane	ND	NA	3.3	ND	ND	9.7	NA	NA	17	ND
1,1-Dichloroethane	1.3	3.3	1.2	1.9	ND	68	7.6	55	71	74
1,1-Dichloroethene	ND	3.1	5.7	4.4	ND	4.7	ND	6.6	8.4	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	340	2100	2700	3000	5300	6100	1100	8600	48000	11000
trans-1,2-Dichloroethene	3	19	32	17	61	89	28	58	77	84
Total 1,2-Dichloroethene	343	2119	2732	3017	5361	6189	1128	8658	48077	11084
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-Pentanone	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ND	NA	NA	NA	ND	ND	NA	NA	NA	ND
Tetrachloroethene	ND	ND	3.1	ND	ND	1.3	ND	1.2	ND	ND
Trichloroethene	23	230	480	300	510	420	53	500	440	640
1,2,4-Trimethylbenzene	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Vinyl Chloride	5.1	220	410	400	ND	1400	290	1900	1200	1400
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Results are reported in micrograms per liter (ug/L)
2. ND = Not detected above the method detection limit
3. NA = Not analyzed
4. No data was collected during the October 1998 sampling event

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	<u>IN 7-MAR-95</u>	<u>EFF 7-MAR-95</u>	<u>IN 9-MAR-95</u>	<u>EFF 9-MAR-95</u>	<u>IN 28-MAR-95</u>	<u>EFF 28-MAR-95</u>
Tetrachloroethene	3,400	64	2,300	<17	2,400	<17
Trichloroethene	28,000	830	34,000	170	14,000	180
1,1 Dichloroethene	<670	34	<340	58	<210	110
cis 1,2-Dichloroethene	40,000	1,900	35,000	1,300	8,700	1,500
trans 1,2-Dichloroethene	1,600	150	1,600	160	490	200
Vinyl Chloride	1,900	1,300	1,500	3,700	1,400	1,200
1,1,1-Trichloroethane	7,300	260	6,000	94	3,500	120
1,1-Dichloroethane	<670	30	550	25	280	40
Toluene	1,100	22	1,900	<17	950	<17
Cumulative Risk	5.40E-06	1.80E-06	5.20E-06	7.60E-06	4.00E-06	2.50E-06

<u>Contaminant</u>	<u>IN 29-MAR-95</u>	<u>EFF 29-MAR-95</u>	<u>IN 6-NOV-95</u>	<u>EFF 6-NOV-95</u>	<u>IN 7-NOV-95</u>	<u>EFF 7-NOV-95</u>
Tetrachloroethene	1,900	68	1,100	1,200	990	840
Trichloroethene	12,000	760	8,600	7,600	7,800	4,500
1,1 Dichloroethene	<170	210	<84	<84	<84	<51
cis 1,2-Dichloroethene	8,200	4,000	10,000	7,300	9,700	5,800
trans 1,2-Dichloroethene	440	450	750	460	720	460
Vinyl Chloride	1,800	1,700	<84	130	<84	370
1,1,1-Trichloroethane	2,800	360	1,800	1,700	1,700	1,000
1,1-Dichloroethane	270	100	330	190	310	190
Toluene	990	<51	340	360	350	200
Cumulative Risk	4.62E-06	3.54E-06	6.23E-07	8.53E-07	8.10E-07	1.00E-06

Notes:

1. All results reported in parts per billion (volume/volume)
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	<u>IN 8-NOV-95</u>	<u>EFF 8-NOV-95</u>	<u>IN 9-NOV-95</u>	<u>EFF 9-NOV-95</u>	<u>IN 10-NOV-95</u>	<u>EFF 10-NOV-95</u>
Tetrachloroethene	980	1,000	1,300	900	930	1,000
Trichloroethene	7,800	4,900	11,000	4,500	7,700	5,000
1,1 Dichloroethene	<67	<67	<67	<84	<84	<84
cis 1,2-Dichloroethene	9,400	8,100	15,000	7,600	9,000	9,000
trans 1,2-Dichloroethene	730	660	980	610	670	750
Vinyl Chloride	200	350	690	260	130	<84
1,1,1-Trichloroethane	1,600	1,400	2,000	1,100	1,500	1,200
1,1-Dichloroethane	300	260	420	230	280	270
Toluene	360	250	450	220	490	250
Cumulative Risk	9.73E-07	1.13E-06	2.10E-06	9.10E-07	9.70E-07	6.20E-07

<u>Contaminant</u>	<u>IN 1-MAR-96</u>	<u>EFF 1-MAR-96</u>	<u>IN 8-MAR-96</u>	<u>EFF 8-MAR-96</u>	<u>IN 5-APR-96</u>	<u>EFF 5-APR-96</u>
Tetrachloroethene	300	380	310	82	310	270
Trichloroethene	5200	4900	4000	380	3100	3100
1,1 Dichloroethene	<67	<67	<63	<7	<34	<34
cis 1,2-Dichloroethene	4100	4500	4200	360	3100	3400
trans 1,2-Dichloroethene	340	310	280	20	240	250
Vinyl Chloride	81	240	<63	250	54	310
1,1,1-Trichloroethane	530	580	650	73	480	400
1,1-Dichloroethane	140	<67	110	<7	98	110
Toluene	<67	<67	<63	7	<34	<34
Cumulative Risk	4.86E-07	8.09E-07	2.59E-07	5.46E-07	3.22E-07	8.41E-07

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	<u>IN 13-APR-96</u>	<u>EFF 13-APR-96</u>	<u>IN 16-MAY-96</u>	<u>EFF 16-MAY-96</u>	<u>IN 14-JUN-96</u>	<u>EFF 14-JUN-96</u>
Tetrachloroethene	310	130	620	280	360	380
Trichloroethene	3,200	1,500	3,900	2,400	1,900	1,900
1,1 Dichloroethene	<17	27	<34	<22	<34	20
cis 1,2-Dichloroethene	2,800	1,900	5,100	2,400	4,400	2,200
trans 1,2-Dichloroethene	220	200	240	210	79	100
Vinyl Chloride	190	210	1,500	110	640	250
1,1,1-Trichloroethane	450	280	730	540	230	220
1,1-Dichloroethane	100	53	120	67	62	47
Toluene	<17	<17	<34	<22	47	26
Cumulative Risk	6.06E-07	5.30E-07	3.38E-06	3.95E-07	1.47E-06	6.72E-07

<u>Contaminant</u>	<u>IN 23-JUL-96</u>	<u>EFF 23-JUL-96</u>	<u>IN 22-AUG-96</u>	<u>EFF 22-AUG-96</u>	<u>IN 23-SEP-96</u>	<u>EFF 23-SEP-96</u>
Tetrachloroethene	820	43	<15	<15	413	<15
Trichloroethene	4,100	300	3,908	<19	2,977	<19
1,1 Dichloroethene	<34	10	NA	NA	<25	<25
cis 1,2-Dichloroethene	5,700	1,100	3,531	<25	2,370	<25
trans 1,2-Dichloroethene	260	62	<25	<25	252	<25
Vinyl Chloride	930	710	<39	<39	62	<39
1,1,1-Trichloroethane	450	140	<18	<18	751	<18
1,1-Dichloroethane	120	30	<25	<25	101	<25
Toluene	<34	<9	<27	<27	<27	<27
Cumulative Risk	2.25E-06	1.48E-06	2.88E-07	8.33E-08	3.48E-07	8.33E-08

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	<u>IN 14-Oct-96</u>	<u>EFF 14-Oct-96</u>	<u>IN 25-Nov-96</u>	<u>EFF 25-Nov-96</u>	<u>IN 10-Dec-96</u>	<u>EFF 10-Dec-96</u>
Tetrachloroethene	295	<15	370	30	280	<17
Trichloroethene	4,470	1,526	2,800	640	2,700	370
1,1 Dichloroethene	<126	<25	<34	37	<22	27
cis 1,2-Dichloroethene	4,035	2,522	3,600	2,700	2,900	1,300
trans 1,2-Dichloroethene	378	302	330	300	280	130
Vinyl Chloride	<194	155	<34	170	52	150
1,1,1-Trichloroethane	772	570	500	280	400	180
1,1-Dichloroethane	<123	74	92	70	89	44
Toluene	<133	<27	<34	<17	<22	<17
Cumulative Risk	6.79E-07	4.01E-07	2.07E-07	3.87E-07	2.92E-07	3.27E-07

<u>Contaminant</u>	<u>IN 8-Jan-97</u>	<u>EFF 8-Jan-97</u>	<u>IN 15-Feb-97</u>	<u>EFF 15-Feb-97</u>	<u>IN 6-Mar-97</u>	<u>EFF 6-Mar-97</u>
Tetrachloroethene	300	<13	500	14	180	<4.2
Trichloroethene	1,300	400	3,300	190	510	78
1,1 Dichloroethene	<13	<13	<47	14	<5.4	9
cis 1,2-Dichloroethene	1,000	960	2,700	630	380	330
trans 1,2-Dichloroethene	60	69	190	46	22	17
Vinyl Chloride	<13	85	110	130	<5.4	57
1,1,1-Trichloroethane	170	86	370	51	68	25
1,1-Dichloroethane	23	23	56	15	9	7
Toluene	<13	<13	220	<11	13	<4.2
Cumulative Risk	1.17E-07	1.96E-07	4.77E-07	2.79E-07	6.58E-08	1.22E-07

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Contaminant	IN <u>18-Apr-97</u>	EFF <u>18-Apr-97</u>	IN (6) <u>14-May-97</u>	EFF <u>14-May-97</u>	IN <u>12-Jun-97</u>	EFF <u>12-Jun-97</u>
Tetrachloroethene	140	13	11,000	30	300	17
Trichloroethene	450	180	62,000	410	940	270
1,1 Dichloroethene	<13	8	<840	<17	<8.4	16
cis 1,2-Dichloroethene	420	1,100	70,000	1,800	740	1,300
trans 1,2-Dichloroethene	26	37	3,600	80	43	59
Vinyl Chloride	<13	380	<840	200	<8.4	150
1,1,1-Trichloroethane	97	49	2,700	73	120	54
1,1-Dichloroethane	11	17	<840	29	14	20
Toluene	120	<3	1,400	<17	31	<12
Cumulative Risk	7.21E-08	7.91E-07	6.69E-06	4.37E-07	1.13E-07	3.25E-07

Contaminant	IN <u>24-Jul-97</u>	EFF <u>24-Jul-97</u>	IN <u>14-Aug-97</u>	EFF <u>14-Aug-97</u>	IN <u>3-Sep-97</u>	EFF <u>3-Sep-97</u>
Tetrachloroethene	480	38	370	53	380	140
Trichloroethene	1,600	660	1,900	1,100	2,600	1,600
1,1 Dichloroethene	<17	<23	<13	9	<28	<51
cis 1,2-Dichloroethene	1,200	2,200	1,300	1,800	3,000	5,600
trans 1,2-Dichloroethene	90	100	90	100	330	260
Vinyl Chloride	<17	100	36	66	120	820
1,1,1-Trichloroethane	280	170	230	190	360	270
1,1-Dichloroethane	31	34	31	32	91	73
Toluene	<17	<23	<13	<8.4	<28	<51
Cumulative Risk	1.94E-07	2.46E-07	2.31E-07	2.01E-07	4.42E-07	1.79E-06

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.
6. Results indicated for May 1997 are considered suspect due to abnormally high levels relative to historical observations.

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Contaminant	IN <u>16-Oct-97</u>	EFF <u>16-Oct-97</u>	IN <u>18-Nov-97</u>	EFF <u>18-Nov-97</u>	IN <u>30-Dec-97</u>	EFF <u>30-Dec-97</u>
Tetrachloroethene	300	31	460	59	40	64
Trichloroethene	2,700	600	4,400	880	630	580
1,1 Dichloroethene	<34	24	<35	26	<17	<17
cis 1,2-Dichloroethene	3,100	2,000	4,300	2,800	1,700	1,600
trans 1,2-Dichloroethene	280	150	460	240	150	130
Vinyl Chloride	<34	110	55	260	210	190
1,1,1-Trichloroethane	300	100	430	160	160	89
1,1-Dichloroethane	70	42	99	66	51	42
Toluene	<34	<9	<35	<8.7	58	<17
Cumulative Risk	2.58E-07	2.62E-07	4.16E-07	5.89E-07	4.70E-07	4.30E-07

Contaminant	IN <u>30-Jan-98</u>	EFF <u>30-Jan-98</u>	IN <u>27-Feb-98</u>	EFF <u>27-Feb-98</u>	IN <u>19-Mar-98</u>	EFF <u>19-Mar-98</u>
Tetrachloroethene	94	28	35	<4.4	57	24
Trichloroethene	450	220	370	31	360	140
1,1 Dichloroethene	<5.9	10	<4.8	16	<22	31
cis 1,2-Dichloroethene	1,600	610	1,700	640	1,500	1,100
trans 1,2-Dichloroethene	60	31	99	53	61	100
Vinyl Chloride	380	280	400	380	370	380
1,1,1-Trichloroethane	77	32	110	33	82	31
1,1-Dichloroethane	31	<8.4	46	23	<22	28
Toluene	<5.9	<8.4	22	21	<22	<18
Cumulative Risk	8.18E-07	5.90E-07	8.45E-07	7.82E-07	7.87E-07	7.91E-07

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.
6. Results indicated for May 1997 are considered suspect due to abnormally high levels relative to historical observations.

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Contaminant	IN 29-Apr-98	EFF 29-Apr-98	IN 21-May-98	EFF 21-May-98	IN 8-Jun-98	EFF 8-Jun-98
Tetrachloroethene	130	36	75	28	200	45
Trichloroethene	580	190	790	270	1000	230
1,1 Dichloroethene	<34	<23	<43	21	<17	6.4
cis 1,2-Dichloroethene	2,600	1,500	2,500	1,200	3000	650
trans 1,2-Dichloroethene	85	130	92	96	120	36
Vinyl Chloride	490	390	390	220	350	170
1,1,1-Trichloroethane	75	23	95	22	64	9
1,1-Dichloroethane	40	<23	<43	<17	56	11
Toluene	<34	<23	<43	<17	<17	<5.8
Cumulative Risk	1.06E-06	8.16E-07	8.53E-07	4.70E-07	8.02E-07	3.68E-07

Contaminant	IN 13-Jul-98	EFF 13-Jul-98	IN 6-Aug-98	EFF 6-Aug-98	IN 28-Sep-98	EFF 28-Sep-98
Tetrachloroethene	54	21	39	15	44	14
Trichloroethene	1,100	210	720	170	1400	240
1,1 Dichloroethene	56	11	<29	15	<34	<12
cis 1,2-Dichloroethene	3,800	910	2,000	770	3,900	880
trans 1,2-Dichloroethene	180	53	110	58	220	58
Vinyl Chloride	340	220	410	270	360	150
1,1,1-Trichloroethane	160	30	130	28	140	26
1,1-Dichloroethane	<27	12	53	18	81	19
Toluene	<27	<5.6	<29	<8.6	<34	15
Cumulative Risk	7.64E-07	4.66E-07	8.85E-07	5.65E-07	8.19E-07	3.23E-07

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.
6. Results indicated for May 1997 are considered suspect due to abnormally high levels relative to historical observations.

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Contaminant	IN <u>23-Oct-98</u>	EFF <u>23-Oct-98</u>	IN <u>27-Nov-98</u>	EFF <u>27-Nov-98</u>	IN <u>17-Dec-98</u>	EFF <u>17-Dec-98</u>
Tetrachloroethene	200	11	99	22	90	39
Trichloroethene	1,200	140	960	410	710	340
1,1 Dichloroethene	<42	21	<14	<17	<26	22
cis 1,2-Dichloroethene	3,900	630	2,700	1,400	2,800	970
trans 1,2-Dichloroethene	170	38	170	110	120	61
Vinyl Chloride	330	150	230	110	340	230
1,1,1-Trichloroethane	360	57	120	46	200	80
1,1-Dichloroethane	67	14	56	29	50	19
Toluene	<42	<8.4	16	<17	<26	<8.9
Cumulative Risk	7.71E-07	3.17E-07	5.38E-07	2.51E-07	7.49E-07	4.96E-07

Contaminant	IN <u>30-Jan-99</u>	EFF <u>30-Jan-99</u>	IN <u>22-Feb-99</u>	EFF <u>22-Feb-99</u>	IN <u>23-Mar-99</u>	EFF <u>23-Mar-99</u>
Tetrachloroethene	75	<6.7	<22	15	130	11
Trichloroethene	600	110	1,000	200	550	130
1,1 Dichloroethene	<22	<6.7	<22	<11	<22	<8.4
cis 1,2-Dichloroethene	2,000	600	4,100	880	2,400	890
trans 1,2-Dichloroethene	82	43	230	58	64	40
Vinyl Chloride	220	47	570	130	280	160
1,1,1-Trichloroethane	120	19	75	21	130	48
1,1-Dichloroethane	41	11	72	15	45	17
Toluene	<22	<6.7	76	64	<22	11
Cumulative Risk	4.59E-07	1.03E-07	1.23E-06	2.80E-07	6.24E-07	3.37E-07

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.
6. Results indicated for May 1997 are considered suspect due to abnormally high levels relative to historical observations.

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Contaminant	IN <u>23-Apr-99</u>	EFF <u>23-Apr-99</u>	IN <u>17-May-99</u>	EFF <u>17-May-99</u>	IN <u>24-Jun-99</u>	EFF <u>24-Jun-99</u>
Tetrachloroethene	<14	17	110	52	46	6
Trichloroethene	220	300	570	240	860	120
1,1 Dichloroethene	<14	<13	<18	<12	<17	6
cis 1,2-Dichloroethene	1,600	1,500	2,200	1,000	2,300	390
trans 1,2-Dichloroethene	50	58	52	36	140	35
Vinyl Chloride	360	280	220	120	240	35
1,1,1-Trichloroethane	36	36	83	25	43	8
1,1-Dichloroethane	26	25	29	13	45	9
Toluene	20	<13	<18	<12	<17	3
Cumulative Risk	7.52E-07	5.93E-07	4.98E-07	2.67E-07	5.45E-07	7.90E-08
Contaminant	EFF <u>13-Jul-99</u>	EFF <u>6-Aug-99</u>	EFF <u>1-Sep-99</u>	EFF <u>14-Oct-99</u>	EFF <u>23-Nov-99</u>	EFF <u>13-Dec-99</u>
Tetrachloroethene	51	27	25	63	16	38
Trichloroethene	440	810	390	1,700	390	520
1,1 Dichloroethene	<7.8	<9.2	4	<9.2	<14	<12
cis 1,2-Dichloroethene	2,200	<9.2	1,600	3,300	1,400	1,500
trans 1,2-Dichloroethene	100	140	120	260	76	95
Vinyl Chloride	340	270	220	180	200	200
1,1,1-Trichloroethane	180	44	200	99	97	66
1,1-Dichloroethane	45	45	60	61	32	32
Toluene	<7.8	<9.2	<2.3	<9.2	<14	<12
Cumulative Risk	7.29E-07	6.01E-07	4.76E-07	4.68E-07	4.33E-07	4.44E-07

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.
6. Air treatment system discontinued on June 24, 1999

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Contaminant	EFF 3-Jan-00	EFF 7-Feb-00	EFF 15-Mar-00	EFF 25-Apr-00	EFF 24-May-00	EFF 6-Jun-00
Tetrachloroethene	57	<8.3	88	<21	110	30
Trichloroethene	440	220	400	300	440	380
1,1 Dichloroethene	<18	<8.3	<9.0	<3.1	<12	2
cis 1,2-Dichloroethene	1,100	740	1,200	2,300	1,000	1,800
trans 1,2-Dichloroethene	68	55	46	83	71	85
Vinyl Chloride	94	91	61	260	130	190
1,1,1-Trichloroethane	110	29	89	47	150	110
1,1-Dichloroethane	29	17	25	31	30	27
Toluene	<18	<8.3	<9.0	<3.1	<12	<2.0
Cumulative Risk	2.25E-07	2.00E-07	1.60E-07	5.52E-07	3.07E-07	4.14E-07

Contaminant	EFF 25-Jul-00	EFF 4-Aug-00	EFF 5-Sep-00	EFF 6-Oct-00	EFF 7-Nov-00	EFF 21-Dec-00
Tetrachloroethene	31	56	22	52	110	38
Trichloroethene	290	840	540	920	840	760
1,1 Dichloroethene	<9.7	<12	<12	<18	<10	<9.3
cis 1,2-Dichloroethene	1,400	2,200	2,100	2,200	1,900	1,900
trans 1,2-Dichloroethene	39	100	140	160	97	100
Vinyl Chloride	190	230	210	130	170	190
1,1,1-Trichloroethane	80	59	80	93	73	50
1,1-Dichloroethane	21	30	34	49	36	30
Toluene	<9.7	<12	<12	<18	<10	<9.3
Cumulative Risk	4.10E-07	5.25E-07	4.63E-07	3.23E-07	4.10E-07	4.36E-07

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.
6. Air treatment system discontinued on June 24, 1999

Table 11
Summary of Treatment System Air Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Contaminant	EFF 30-Jan-01	EFF 26-Feb-01	EFF 21-Mar-01	EFF 23-Apr-01	EFF 21-May-01	EFF 13-Jun-01
Tetrachloroethene	38	<140	34	<140	<150	<150
Trichloroethene	630	260	340	160	<150	430
1,1-Dichloroethene	<9.2	<140	2.1	<140	<150	<150
cis-1,2-Dichloroethene	2,000	1,700	1,300	1,000	630	1,400
trans-1,2-Dichloroethene	49	NA	NA	NA	NA	NA
Vinyl Chloride	270	180	190	160	<150	210
1,1,1-Trichloroethane	53	<140	26	<140	<150	<150
1,1-Dichloroethane	30	<140	18	<140	<150	<150
Toluene	<9.2	<140	4.0	<140	<150	<150
Cumulative Risk	5.93E-07	4.05E-07	4.13E-07	3.58E-07	3.39E-07	4.77E-07

Notes:

1. All results reported in parts per billion (volume/volume).
2. IN = influent sample. EFF = effluent sample.
3. NA = not analyzed.
4. ND = not detected above the reporting limit.
5. Results indicated for primary detected constituents.
6. Air treatment system discontinued on June 24, 1999

Table 12
Summary of Air Dispersion Modeling
Wayne Reclamation and Recycling
Columbia City, Indiana

Scenario No.	Description	Input/Output	Chemicals									Cumulative Cancer Risk
			Tetrachloroethene Carcinogen	Trichloroethene Carcinogen	1,1-Dichloroethene Non-Carcinogen	cis 1,2-Dichloroethene Non-Carcinogen	trans 1,2-Dichloroethene Non-Carcinogen	Vinyl Chloride Carcinogen	1,1,1-Trichloroethane Non-Carcinogen	1,1,2-Dichloroethane Carcinogen	Toluene Non-Carcinogen	
1	AT-IN-2 9-Mar-95	(ppb)	2300	34000		35000	1600	1500	6000	550	1900	
		(g/s)	0.013	0.190		0.196	0.009	0.008	0.034	0.003	0.011	
		Max Conc.	0.060	0.894		0.921	0.042	0.019	0.158	0.014	0.050	
		ECR	3.6E-07	1.79E-06				3.08E-06		2.36E-10		5.22E-06
2	AT-EFF-2 9-Mar-95	(ppb)	170	58		1300	160	3700	94	25		
		(g/s)	0.001	0.000		0.007	0.001	0.021	0.001	0.000		
		Max Conc.	0.004	0.002		0.014	0.004	0.097	0.002	0.001		
		ECR		8.94E-09				7.59E-06		1.07E-11		7.60E-06
3	AT-IN-3 28-Mar-95	(ppb)	2400	14000		8700	490	1400	3500	280	950	
		(g/s)	0.013	0.078		0.049	0.003	0.008	0.020	0.002	0.005	
		Max Conc.	0.063	0.368		0.129	0.013	0.037	0.092	0.007	0.025	
		ECR	3.7E-07	7.36E-07				2.87E-06		1.20E-10		3.98E-06
4	AT-EFF-3 28-Mar-95	(ppb)	180	110		1500	200	1200	120	40		
		(g/s)	0.001	0.001		0.008	0.001	0.007	0.001	0.000		
		Max Conc.	0.005	0.003		0.019	0.005	0.032	0.003	0.001		
		ECR		9.47E-09				2.46E-06		1.71E-11		2.47E-06
5	AT-IN-4 29-Mar-95	(ppb)	1900	12000		8200	440	1800	2800	270	990	
		(g/s)	0.011	0.067		0.046	0.002	0.010	0.016	0.002	0.006	
		Max Conc.	0.050	0.316		0.216	0.012	0.047	0.074	0.007	0.026	
		ECR	2.9E-07	6.31E-07				3.69E-06		1.16E-10		4.62E-06
6	AT-EFF-4 29-Mar-95	(ppb)	68	760		210	4000	450	1700	360	100	
		(g/s)	0.000	0.004		0.022	0.003	0.010	0.002	0.001		
		Max Conc.	0.002	0.020		0.006	0.105	0.012	0.045	0.009	0.003	
		ECR	1.1E-08	4.00E-08				3.49E-06		4.29E-11		3.54E-06
7	AT-IN-5 6-Nov-95	(ppb)	1100	8600		10000	750		1800	330	340	
		(g/s)	0.006	0.048		0.056	0.004		0.010	0.002	0.002	
		Max Conc.	0.029	0.226		0.263	0.020		0.047	0.009	0.009	
		ECR	1.71E-07	4.52E-07						1.41E-10		6.23E-07
8	AT-EFF-5 6-Nov-95	(ppb)	1200	7600		7300	460	130	1700	190	360	
		(g/s)	0.007	0.043		0.041	0.003	0.001	0.010	0.001	0.002	
		Max Conc.	0.032	0.200		0.192	0.012	0.003	0.045	0.005	0.009	
		ECR	1.86E-07	4.00E-07				2.67E-07		8.15E-11		8.53E-07
9	AT-IN-8 8-Nov-95	(ppb)	980	7800		9400	730	200	1600		360	
		(g/s)	0.005	0.044		0.053	0.004	0.001	0.009		0.002	
		Max Conc.	0.026	0.205		0.247	0.019	0.005	0.042		0.009	
		ECR	1.52E-07	4.10E-07				4.10E-07				9.73E-07
10	AT-EFF-8 8-Nov-95	(ppb)	1000	4900		8100	660	350	1400	260	250	
		(g/s)	0.006	0.027		0.045	0.004	0.002	0.008	0.001	0.001	
		Max Conc.	0.026	0.129		0.213	0.017	0.009	0.037	0.007	0.007	
		ECR	1.55E-07	2.58E-07				7.18E-07		1.11E-10		1.13E-06
11	AT-IN-11 1-Mar-96	(ppb)	300	5200		4100	340	81	530	140		
		(g/s)	0.002	0.029		0.023	0.002	0.000	0.003	0.001		
		Max Conc.	0.008	0.137		0.108	0.009	0.002	0.014	0.004		
		ECR	4.66E-08	2.74E-07				1.66E-07		6.00E-11		4.86E-07
12	AT-EFF-11 1-Mar-96	(ppb)	380	4900		4500	310	240	580			
		(g/s)	0.002	0.027		0.025	0.002	0.001	0.003			
		Max Conc.	0.010	0.129		0.118	0.008	0.006	0.015			
		ECR	5.90E-08	2.58E-07				4.92E-07				8.09E-07
13	AT-IN-13 8-Mar-96	(ppb)	310	4.00E+03		4200	280		650	110		
		(g/s)	0.002	0.022		0.024	0.002		0.004	0.001		
		Max Conc.	0.008	0.105		0.110	0.007		0.017	0.003		
		ECR	4.81E-08	2.10E-07						4.72E-11		2.59E-07

TABLE 14
Summary of Air Dispersion Modeling
Wayne Reclamation and Recycling
Columbus City, Indiana

Scenario No.	Description	Input/Output	Chemicals										Cumulative Cancer Risk
			Tetrachloroethene Carcinogen	Tetrachloroethene Non-Carcinogen	1,1-Dichloroethene Carcinogen	1,1-Dichloroethene Non-Carcinogen	cis 1,2-Dichloroethene Non-Carcinogen	trans 1,2-Dichloroethene Non-Carcinogen	Vinyl Chloride Carcinogen	1,1,1-Trichloroethane Non-Carcinogen	1,1-Dichloroethane Carcinogen	Toluene Non-Carcinogen	
14	AT-EF-I3 8-Mar-96	(ppb)	82	380			360	20	250	73		7.1	
		(g/s)	0.0005	0.0021			0.0020	0.0001	0.0014	0.0004		0.0000	
		Max Conc.	0.002	0.010			0.009	0.001	0.007	0.002		0.0000	
		ECR	1.27E-08	2.00E-08					5.13E-07				5.46E-07
15	IN 5-Apr-96	(ppb)	310	3100	34		3100	240	54	480	98	34	
		(g/s)	0.0017	0.0174	0.0002		0.0174	0.0013	0.0003	0.0027	0.0005	0.0002	
		Max Conc.	0.008	0.082	0.001		0.082	0.006	0.001	0.013	0.003	0.001	
		ECR	4.81E-08	1.63E-07					1.11E-07		4.20E-11		3.22E-07
16	EFF 5-Apr-96	(ppb)	270	3100	34		3400	250	310	400	110	34	
		(g/s)	0.0015	0.0174	0.0002		0.0190	0.0014	0.0017	0.0022	0.0006	0.0002	
		Max Conc.	0.007	0.082	0.001		0.089	0.007	0.008	0.011	0.003	0.001	
		ECR	4.19E-08	1.63E-07					6.36E-07		4.72E-11		3.41E-07
17	IN 13-Apr-96	(ppb)	310	3200	17		2800	220	190	450	100	17	
		(g/s)	0.0017	0.0179	0.0001		0.0157	0.0012	0.0011	0.0025	0.0006	0.0001	
		Max Conc.	0.008	0.084	0.000		0.074	0.006	0.005	0.012	0.003	0.000	
		ECR	4.81E-08	1.68E-07					3.90E-07		4.29E-11		6.06E-07
18	EFF 13-Apr-96	(ppb)	130	1500	27		1900	200	210	280	53	17	
		(g/s)	0.0007	0.0084	0.0002		0.0106	0.0011	0.0012	0.0016	0.0003	0.0001	
		Max Conc.	0.003	0.039	0.001		0.050	0.005	0.006	0.007	0.001	0.000	
		ECR	2.02E-08	7.89E-08					4.11E-07		2.27E-11		5.30E-07
19	IN 16-May-96	(ppb)	620	3900	34		5100	240	1100	730	120	34	
		(g/s)	0.0035	0.0218	0.0002		0.0286	0.0013	0.0084	0.0041	0.0007	0.0002	
		Max Conc.	0.016	0.103	0.001		0.134	0.006	0.039	0.019	0.003	0.001	
		ECR	9.62E-08	2.05E-07					3.08E-06		5.14E-11		3.38E-06
20	EFF 16-May-96	(ppb)	280	2400	22		2400	210	110	540	67	2.20E+01	
		(g/s)	0.0016	0.0134	0.0001		0.0134	0.0012	0.0006	0.0030	0.0004	0.0001	
		Max Conc.	0.007	0.063	0.001		0.063	0.006	0.003	0.014	0.002	0.001	
		ECR	4.34E-08	1.26E-07					2.26E-07		2.17E-11		3.95E-07
21	IN 14-Jun-96	(ppb)	360	1900	34		4400	79	640	230	62	47	
		(g/s)	0.0020	0.0106	0.0002		0.0246	0.0004	0.0036	0.0013	0.0003	0.0003	
		Max Conc.	0.009	0.050	0.001		0.116	0.002	0.017	0.006	0.002	0.001	
		ECR	5.59E-08	9.99E-08					1.31E-06		2.66E-11		1.47E-06
22	EFF 14-Jun-96	(ppb)	380	1900	20		2200	100	250	220	47	26	
		(g/s)	0.0021	0.0106	0.0001		0.0123	0.0006	0.0014	0.0012	0.0003	0.0001	
		Max Conc.	0.010	0.050	0.001		0.058	0.003	0.007	0.006	0.001	0.001	
		ECR	5.90E-08	9.99E-08					5.13E-07		2.01E-11		6.72E-07
23	IN 23-Jul-96	(ppb)	820	4100	34		5700	260	930	450	120	34	
		(g/s)	0.0046	0.0230	0.0002		0.0119	0.0015	0.0052	0.0023	0.0007	0.0002	
		Max Conc.	0.022	0.108	0.001		0.150	0.007	0.024	0.012	0.003	0.001	
		ECR	1.27E-07	2.16E-07					1.91E-06		5.14E-11		2.25E-06
24	EFF 23-Jul-96	(ppb)	43	300	10		1100	62	710	140	30	9	
		(g/s)	0.0002	0.0017	0.0001		0.0062	0.0003	0.0040	0.0008	0.0002	0.0001	
		Max Conc.	0.001	0.008	0.000		0.029	0.002	0.019	0.004	0.001	0.000	
		ECR	6.67E-09	1.58E-08					1.46E-06		1.29E-11		1.48E-06
25	IN 22-Aug-96	(ppb)	15	3908	1		3531	25	39	18	25	27	
		(g/s)	0.0001	0.0219	0.0000		0.0198	0.0001	0.0002	0.0001	0.0001	0.0002	
		Max Conc.	0.000	0.103	0.000		0.093	0.001	0.001	0.000	0.001	0.001	
		ECR	2.33E-09	2.06E-07					8.00E-08		1.07E-11		2.88E-07
26	EFF 22-Aug-96	(ppb)	15	19	1		25	25	39	18	25	27	
		(g/s)	0.0001	0.0001	0.0000		0.0001	0.0001	0.0002	0.0001	0.0001	0.0002	
		Max Conc.	0.000	0.000	0.000		0.0001	0.0001	0.0001	0.0000	0.0001	0.0001	
		ECR	2.33E-09	9.99E-10					8.00E-08		1.07E-11		8.33E-08

Table 12
Summary of Air Dispersion Modeling
Wayne Reclamation and Recycling
Columbia City, Indiana

Scenario No.	Description	Input/Output	Chemicals										Cumulative Cancer Risk
			Tetrachloroethene Carcinogen	Trichloroethene Carcinogen	1,1-Dichloroethene Non-Carcinogen	cis 1,2-Dichloroethene Non-Carcinogen	trans 1,2-Dichloroethene Non-Carcinogen	Vinyl Chloride Carcinogen	1,1,1-Trichloroethane Non-Carcinogen	1,1-Dichloroethane Carcinogen	Toluene Non-Carcinogen		
27	IN 23-Sep-96	(ppb)	413	2977	25	2370	252	62	751	101	27		
		(g/s)	0.0023	0.0167	0.0001	0.0133	0.0014	0.0003	0.0042	0.0006	0.0002		
		Max Conc.	0.011	0.078	0.001	0.062	0.007	0.002	0.020	0.003	0.001		
		ECR	6.41E-08	1.57E-07			1.27E-07		4.33E-11			3.48E-07	
28	EFF 23-Sep-96	(ppb)	15	19	25	25	25	39	18	25	27		
		(g/s)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.0002		
		Max Conc.	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.001	0.001		
		ECR	2.33E-09	9.99E-10				8.00E-08		1.07E-11		8.33E-08	
29	IN 14-Oct-96	(ppb)	295	4470	126	4035	378	194	772	123	133		
		(g/s)	0.0017	0.0250	0.0007	0.0226	0.0021	0.0011	0.0043	0.0007	0.0007		
		Max Conc.	0.008	0.118	0.003	0.106	0.010	0.005	0.020	0.003	0.003		
		ECR	4.58E-08	2.35E-07				3.98E-07		5.27E-11		6.79E-07	
30	EFF 14-Oct-96	(ppb)	15	1526	25	2522	302	155	570	74	27		
		(g/s)	0.0001	0.0085	0.0001	0.0141	0.0017	0.0009	0.0032	0.0004	0.0002		
		Max Conc.	0.000	0.040	0.001	0.066	0.008	0.004	0.015	0.002	0.001		
		ECR	2.33E-09	8.03E-08				3.18E-07		3.17E-11		4.01E-07	
31	IN 25-Nov-96	(ppb)	370	2800	1	3600	310	1	500	92	1		
		(g/s)	0.0021	0.0157	0.0000	0.0202	0.0018	0.0000	0.0028	0.0005	0.0000		
		Max Conc.	0.010	0.074	0.000	0.095	0.009	0.000	0.013	0.002	0.000		
		ECR	5.74E-08	1.47E-07				2.05E-09		3.94E-11		2.07E-07	
32	EFF 25-Nov-96	(ppb)	30	640	37	2700	300	170	280	70	1		
		(g/s)	0.0002	0.0036	0.0002	0.0151	0.0017	0.0010	0.0016	0.0004	0.0000		
		Max Conc.	0.001	0.017	0.001	0.071	0.008	0.004	0.007	0.002	0.000		
		ECR	4.66E-09	3.37E-08				3.49E-07		3.00E-11		3.87E-07	
33	IN 10-Dec-96	(ppb)	280	2700	1	2900	280	52	400	89	1		
		(g/s)	0.0016	0.0151	0.0000	0.0162	0.0016	0.0003	0.0022	0.0005	0.0000		
		Max Conc.	0.007	0.071	0.000	0.076	0.007	0.001	0.011	0.002	0.000		
		ECR	4.34E-08	1.42E-07				1.07E-07		3.82E-11		2.92E-07	
34	EFF 10-Dec-96	(ppb)	1	370	27	1300	130	150	180	44	1		
		(g/s)	0.0000	0.0021	0.0002	0.0073	0.0007	0.0008	0.0010	0.0002	0.0000		
		Max Conc.	0.000	0.010	0.001	0.034	0.003	0.004	0.005	0.001	0.000		
		ECR	1.55E-10	1.95E-08				3.08E-07		1.89E-11		3.27E-07	
35	IN 8-Jan-97	(ppb)	300	1300	1	1000	60	1	170	23	1		
		(g/s)	0.0017	0.0073	0.0000	0.0056	0.0003	0.0000	0.0010	0.0001	0.0000		
		Max Conc.	0.008	0.034	0.000	0.026	0.002	0.000	0.004	0.001	0.000		
		ECR	4.66E-08	6.84E-08				2.05E-09		9.86E-12		1.17E-07	
36	EFF 8-Jan-97	(ppb)	1	400	1	960	69	85	86	23	1		
		(g/s)	0.0000	0.0022	0.0000	0.0054	0.0004	0.0005	0.0005	0.0001	0.0000		
		Max Conc.	0.000	0.011	0.000	0.025	0.002	0.002	0.002	0.001	0.000		
		ECR	1.55E-10	2.10E-08				1.74E-07		9.86E-12		1.96E-07	
37	IN 15-Feb-97	(ppb)	500	3300	1	2700	190	110	370	36	220		
		(g/s)	0.0028	0.0185	0.0000	0.0151	0.0011	0.0006	0.0021	0.0003	0.0012		
		Max Conc.	0.013	0.087	0.000	0.071	0.005	0.003	0.010	0.001	0.006		
		ECR	7.76E-08	1.74E-07				2.26E-07		2.40E-11		4.77E-07	
38	EFF 15-Feb-97	(ppb)	14	190	14	630	46	130	51	15	1		
		(g/s)	0.0001	0.0011	0.0001	0.0035	0.0003	0.0007	0.0003	0.0001	0.0000		
		Max Conc.	0.000	0.005	0.000	0.017	0.001	0.003	0.001	0.000	0.000		
		ECR	2.17E-09	9.99E-09				2.67E-07		6.43E-12		2.79E-07	
39	IN 6-Mar-97	(ppb)	180	510	5	380	22	5	68	9	13		
		(g/s)	0.0010	0.0029	0.0000	0.0021	0.0001	0.0000	0.0004	0.0000	0.0001		
		Max Conc.	0.005	0.013	0.000	0.010	0.001	0.000	0.002	0.000	0.000		
		ECR	2.79E-08	2.68E-08				1.11E-08		3.73E-12		6.58E-08	

TABLE 14
Summary of Air Dispersion Modeling
Wayne Reclamation and Recycling
Columbia City, Indiana

Scenario No.	Description	Input/Output	Chemicals										Cumulative Cancer Risk
			Tetrachloroethene Carcinogen	Trichloroethene Carcinogen	1,1-Dichloroethene Non-Carcinogen	cis 1,2-Dichloroethene Non-Carcinogen	trans 1,2-Dichloroethene Non-Carcinogen	Vinyl Chloride Carcinogen	1,1,1-Trichloroethane Non-Carcinogen	1,1-Dichloroethane Carcinogen	Toluene Non-Carcinogen		
40	EFF 6-Mar-97	(ppb)	4	78	9	330	17	57	25	7	4		
		(μ g/m ³)	0.0000	0.0004	0.0000	0.0018	0.0001	0.0003	0.0001	0.0000	0.0000		
		Max Conc.	0.000	0.002	0.000	0.009	0.000	0.001	0.001	0.000	0.000		
41	IN 18-Apr-97	(ppb)	140	450	13	420	26	13	97	11	120		
		(μ g/m ³)	0.0008	0.0025	0.0001	0.0024	0.0001	0.0001	0.0005	0.0001	0.0007		
		Max Conc.	0.004	0.012	0.000	0.011	0.001	0.000	0.003	0.000	0.003		
42	EFF 18-Apr-97	ECR	6.52E-10	4.10E-09				1.17E-07		3.09E-12		1.22E-07	
		(ppb)	2.17E-08	2.37E-08				2.67E-08		4.72E-12		7.21E-08	
		(μ g/m ³)	0.0001	0.0010	0.0000	0.0062	0.0002	0.0021	0.0003	0.0001	0.0000		
43	IN 14-May-97	Max Conc.	0.000	0.005	0.000	0.029	0.001	0.010	0.001	0.000	0.000		
		ECR	2.02E-09	9.47E-09				7.80E-07		7.29E-12		7.91E-07	
		(ppb)	11000	62000	840	70000	3600	840	2700	840	1400		
44	EFF 14-May-97	(μ g/m ³)	0.0616	0.3471	0.0047	0.3919	0.0202	0.0047	0.0151	0.0047	0.0078		
		Max Conc.	0.289	1.631	0.022	1.841	0.095	0.022	0.071	0.022	0.037		
		ECR	1.71E-06	3.26E-06				1.72E-06		3.60E-10		6.69E-06	
45	IN 12-Jun-97	(ppb)	30	410	17	1800	80	200	71	29	17		
		(μ g/m ³)	0.0002	0.0023	0.0001	0.0101	0.0004	0.0011	0.0004	0.0002	0.0001		
		Max Conc.	0.001	0.011	0.000	0.047	0.002	0.005	0.002	0.001	0.000		
46	EFF 12-Jun-97	ECR	4.66E-09	2.16E-08				4.10E-07		1.24E-11		4.37E-07	
		(ppb)	17	270	16	1300	39	150	34	20	12		
		(μ g/m ³)	0.0001	0.0015	0.0001	0.0073	0.0003	0.0008	0.0003	0.0001	0.0001		
47	IN 24-Jul-97	Max Conc.	0.000	0.007	0.000	0.034	0.002	0.004	0.001	0.001	0.000		
		ECR	2.64E-09	1.42E-08				3.08E-07		8.57E-12		3.25E-07	
		(ppb)	480	1600	17	1200	90	17	280	31	17		
48	EFF 24-Jul-97	(μ g/m ³)	0.0027	0.0090	0.0001	0.0067	0.0005	0.0001	0.0016	0.0002	0.0001		
		Max Conc.	0.013	0.042	0.000	0.032	0.002	0.000	0.007	0.001	0.000		
		ECR	7.45E-08	8.42E-08				3.49E-08		1.33E-11		1.94E-07	
49	IN 14-Aug-97	(ppb)	38	660	23	2200	100	100	170	34	23		
		(μ g/m ³)	0.0002	0.0037	0.0001	0.0123	0.0006	0.0006	0.0010	0.0002	0.0001		
		Max Conc.	0.001	0.017	0.001	0.058	0.003	0.003	0.004	0.001	0.001		
50	EFF 14-Aug-97	ECR	5.90E-09	3.47E-08				2.05E-07		1.46E-11		2.46E-07	
		(ppb)	140	1900	13	1300	90	36	230	31	13		
		(μ g/m ³)	0.0021	0.0106	0.0001	0.0073	0.0005	0.0002	0.0013	0.0002	0.0001		
51	IN 3-Sep-97	Max Conc.	0.010	0.050	0.000	0.034	0.002	0.001	0.006	0.001	0.000		
		ECR	5.74E-08	9.99E-08				7.39E-08		1.33E-11		2.31E-07	
		(ppb)	53	1100	9	1800	100	66	190	32	8		
52	EFF 3-Sep-97	(μ g/m ³)	0.0003	0.0062	0.0001	0.0101	0.0006	0.0004	0.0011	0.0002	0.0000		
		Max Conc.	0.001	0.029	0.000	0.047	0.003	0.002	0.005	0.001	0.000		
		ECR	8.22E-09	5.79E-08				1.35E-07		1.37E-11		2.01E-07	
53	IN 3-Sep-97	(ppb)	380	2600	28	3000	330	120	360	91	28		
		(μ g/m ³)	0.0021	0.0146	0.0002	0.0168	0.0018	0.0007	0.0020	0.0005	0.0002		
		Max Conc.	0.010	0.068	0.001	0.079	0.009	0.003	0.009	0.002	0.001		
54	EFF 3-Sep-97	ECR	5.90E-08	1.37E-07				2.46E-07		3.90E-11		4.42E-07	
		(ppb)	140	1600	51	5600	260	820	270	73	51		
		(μ g/m ³)	0.0008	0.0090	0.0003	0.0314	0.0015	0.0046	0.0015	0.0004	0.0003		
55	EFF 3-Sep-97	Max Conc.	0.004	0.042	0.001	0.147	0.007	0.022	0.007	0.002	0.001		
		ECR	2.17E-08	8.42E-08				1.68E-06		3.13E-11		1.79E-06	

Table 12
Summary of Air Dispersion Modeling
Wayne Reclamation and Recycling
Columbia City, Indiana

Scenario No.	Description	Input/Output	Chemicals										Cumulative Cancer Risk
			Tetrachloroethene Carcinogen	Trichloroethene Carcinogen	1,1-Dichloroethene Non-Carcinogen	cis 1,2-Dichloroethene Non-Carcinogen	trans 1,2-Dichloroethene Non-Carcinogen	Vinyl Chloride Carcinogen	1,1,1-Trichloroethane Non-Carcinogen	1,1-Dichloroethane Carcinogen	Toluene Non-Carcinogen		
53	IN 16-Oct-97	(ppb)	300	2700	34	3100	280	34	300	70	34		
		(g/s)	0.0017	0.0151	0.0002	0.0174	0.0016	0.0002	0.0017	0.0004	0.0002		
		Max Conc	0.008	0.071	0.001	0.082	0.007	0.001	0.008	0.002	0.001		
		ECR	4.66E-08	1.42E-07				6.97E-08		3.00E-11		2.58E-07	
54	EFF 16-Oct-97	(ppb)	31	600	24	2000	150	110	100	42	9		
		(g/s)	0.0002	0.0034	0.0001	0.0112	0.0008	0.0006	0.0006	0.0002	0.0001		
		Max Conc	0.001	0.016	0.001	0.053	0.004	0.003	0.003	0.001	0.000		
		ECR	4.81E-09	3.16E-08				2.26E-07		1.80E-11		2.62E-07	
55	IN 18-Nov-97	(ppb)	460	4400	35	4300	460	55	430	99	35		
		(g/s)	0.0026	0.0246	0.0002	0.0241	0.0026	0.0003	0.0024	0.0006	0.0002		
		Max Conc	0.012	0.116	0.001	0.113	0.012	0.001	0.011	0.003	0.001		
		ECR	7.14E-08	2.31E-07				1.13E-07		4.24E-11		4.16E-07	
56	EFF 18-Nov-97	(ppb)	59	880	26	2800	240	260	160	66	9		
		(g/s)	0.0003	0.0049	0.0001	0.0157	0.0013	0.0015	0.0009	0.0004	0.0001		
		Max Conc	0.002	0.023	0.001	0.074	0.006	0.007	0.004	0.002	0.000		
		ECR	9.16E-09	4.61E-08				5.33E-07		2.83E-11		5.89E-07	
57	IN 30-Dec-97	(ppb)	40	630	17	1700	150	210	160	51	58		
		(g/s)	0.0002	0.0035	0.0001	0.0095	0.0008	0.0012	0.0009	0.0003	0.0003		
		Max Conc	0.001	0.017	0.000	0.045	0.004	0.006	0.004	0.001	0.002		
		ECR	6.21E-09	3.31E-08				4.31E-07		2.19E-11		4.70E-07	
58	EFF 30-Dec-97	(ppb)	64	580	17	1600	130	190	89	42	17		
		(g/s)	0.0004	0.0032	0.0001	0.0090	0.0007	0.0011	0.0005	0.0002	0.0001		
		Max Conc	0.002	0.015	0.000	0.042	0.003	0.005	0.002	0.001	0.000		
		ECR	9.93E-09	3.03E-08				3.90E-07		1.80E-11		4.30E-07	
59	IN 30-Jan-98	(ppb)	94	450	6	1600	60	380	77	31	6		
		(g/s)	0.0005	0.0025	0.0000	0.0090	0.0003	0.0021	0.0004	0.0002	0.0000		
		Max Conc	0.002	0.012	0.000	0.042	0.002	0.010	0.002	0.001	0.000		
		ECR	1.46E-08	2.37E-08				7.80E-07		1.33E-11		1.18E-07	
60	EFF 30-Jan-98	(ppb)	28	220	10	610	31	280	32	8	8		
		(g/s)	0.0002	0.0012	0.0001	0.0034	0.0002	0.0016	0.0002	0.0000	0.0000		
		Max Conc	0.001	0.006	0.000	0.016	0.001	0.007	0.001	0.000	0.000		
		ECR	4.34E-09	1.16E-08				5.74E-07		3.60E-12		5.90E-07	
61	IN 27-Feb-98	(ppb)	35	370	5	1700	99	400	110	46	22		
		(g/s)	0.0002	0.0021	0.0000	0.0095	0.0006	0.0022	0.0006	0.0003	0.0001		
		Max Conc	0.001	0.010	0.000	0.045	0.003	0.011	0.003	0.001	0.001		
		ECR	5.43E-09	1.95E-08				8.21E-07		1.97E-11		8.45E-07	
62	EFF 27-Feb-98	(ppb)	4	31	16	640	53	380	33	23	21		
		(g/s)	0.0000	0.0002	0.0001	0.0036	0.0003	0.0021	0.0002	0.0001	0.0001		
		Max Conc	0.000	0.001	0.000	0.017	0.001	0.010	0.001	0.001	0.001		
		ECR	6.83E-10	1.63E-09				7.80E-07		9.86E-12		7.82E-07	
63	IN 19-Mar-98	(ppb)	57	360	22	1500	61	370	82	22	22		
		(g/s)	0.0003	0.0020	0.0001	0.0084	0.0003	0.0021	0.0005	0.0001	0.0001		
		Max Conc	0.001	0.009	0.001	0.039	0.002	0.010	0.002	0.001	0.001		
		ECR	8.84E-09	1.89E-08				7.59E-07		9.43E-12		7.87E-07	
64	EFF 19-Mar-98	(ppb)	24	140	31	1100	100	380	31	28	18		
		(g/s)	0.0001	0.0008	0.0002	0.0062	0.0006	0.0021	0.0002	0.0002	0.0001		
		Max Conc	0.001	0.004	0.001	0.029	0.003	0.010	0.001	0.001	0.000		
		ECR	3.72E-09	7.36E-09				7.80E-07		1.20E-11		7.91E-07	
65	IN 29-Apr-98	(ppb)	130	580	34	2600	85	490	75	40	34		
		(g/s)	0.0007	0.0032	0.0002	0.0146	0.0005	0.0027	0.0004	0.0002	0.0002		
		Max Conc	0.003	0.015	0.001	0.068	0.002	0.013	0.002	0.001	0.001		
		ECR	2.02E-08	3.05E-08				1.01E-06		1.71E-11		1.06E-06	

Summary of Air Dispersion Modeling
Wayne Reclamation and Recycling
Columbia City, Indiana

Scenario No.	Description	Input/Output	Chemicals										Cumulative Cancer Risk
			Tetrachloroethene Carcinogen	Trichloroethene Carcinogen	1,1-Dichloroethene Non-Carcinogen	cis 1,2-Dichloroethene Non-Carcinogen	trans 1,2-Dichloroethene Non-Carcinogen	Vinyl Chloride Carcinogen	1,1,1-Trichloroethane Non-Carcinogen	1,1-Dichloroethane Carcinogen	Toluene Non-Carcinogen		
66	EFF 29-Apr-98	(ppb)	36	190	23	1500	130	390	23	23	23		
		(g/s)	0.0002	0.0011	0.0001	0.0084	0.0007	0.0022	0.0001	0.0001	0.0001		
		Max Conc.	0.001	0.005	0.001	0.039	0.003	0.010	0.001	0.001	0.001		
		ECR	5.59E-09	9.99E-09				8.00E-07		9.86E-12			8.16E-07
67	IN 21-May-98	(ppb)	75	790	43	2500	92	390	95	43	43		
		(g/s)	0.0004	0.0044	0.0002	0.0140	0.0005	0.0022	0.0005	0.0002	0.0002		
		Max Conc.	0.002	0.021	0.001	0.066	0.002	0.010	0.002	0.001	0.001		
		ECR	1.16E-08	4.16E-08				8.00E-07		1.84E-11			8.53E-07
68	EFF 21-May-98	(ppb)	28	270	21	1200	96	220	22	17	17		
		(g/s)	0.0002	0.0015	0.0001	0.0067	0.0005	0.0012	0.0001	0.0001	0.0001		
		Max Conc.	0.001	0.007	0.001	0.032	0.001	0.006	0.001	0.000	0.000		
		ECR	4.34E-09	1.42E-08				4.51E-07		7.29E-12			4.70E-07
69	IN 8-Jun-98	(ppb)	200	1000	17	3000	120	350	64	56	17		
		(g/s)	0.0011	0.0056	0.0001	0.0168	0.0007	0.0020	0.0004	0.0003	0.0001		
		Max Conc.	0.005	0.026	0.000	0.079	0.003	0.009	0.002	0.001	0.000		
		ECR	3.10E-08	5.26E-08				7.18E-07		2.40E-11			8.02E-07
70	EFF 8-Jun-98	(ppb)	45	230	6	650	36	170	9	11	6		
		(g/s)	0.0003	0.0013	0.0000	0.0036	0.0002	0.0010	0.0001	0.0001	0.0000		
		Max Conc.	0.001	0.006	0.000	0.017	0.001	0.004	0.000	0.000	0.000		
		ECR	6.98E-09	1.21E-08				3.49E-07		4.72E-12			3.68E-07
71	IN 13-Jul-98	(ppb)	34	1100	56	3800	180	340	160	27	27		
		(g/s)	0.0003	0.0062	0.0003	0.0213	0.0010	0.0019	0.0009	0.0002	0.0002		
		Max Conc.	0.001	0.029	0.001	0.100	0.005	0.009	0.004	0.001	0.001		
		ECR	8.38E-09	5.79E-08				6.97E-07		1.16E-11			7.64E-07
72	EFF 13-Jul-98	(ppb)	21	210	11	910	53	220	30	12	5		
		(g/s)	0.0001	0.0012	0.0001	0.0051	0.0003	0.0012	0.0002	0.0001	0.0000		
		Max Conc.	0.001	0.006	0.000	0.024	0.001	0.006	0.001	0.000	0.000		
		ECR	3.26E-09	1.10E-08				4.51E-07		5.14E-12			4.66E-07
73	IN 6-Aug-98	(ppb)	39	720	29	2000	110	410	130	53	29		
		(g/s)	0.0002	0.0040	0.0002	0.0112	0.0006	0.0023	0.0007	0.0003	0.0002		
		Max Conc.	0.001	0.019	0.001	0.053	0.003	0.011	0.003	0.001	0.001		
		ECR	6.05E-09	3.79E-08				8.41E-07		2.27E-11			8.85E-07
74	EFF 6-Aug-98	(ppb)	15	170	15	770	58	270	28	18	9		
		(g/s)	0.0001	0.0010	0.0001	0.0043	0.0003	0.0015	0.0002	0.0001	0.0000		
		Max Conc.	0.000	0.004	0.000	0.020	0.002	0.007	0.001	0.000	0.000		
		ECR	2.33E-09	8.94E-09				5.54E-07		7.72E-12			5.65E-07
75	IN 28-Sep-98	(ppb)	44	1400	34	3900	220	360	140	81	34		
		(g/s)	0.0002	0.0078	0.0002	0.0218	0.0012	0.0020	0.0008	0.0005	0.0002		
		Max Conc.	0.001	0.037	0.001	0.103	0.006	0.009	0.004	0.002	0.001		
		ECR	6.83E-09	7.36E-08				7.39E-07		3.47E-11			8.19E-07
76	EFF 28-Sep-98	(ppb)	14	240	12	880	58	150	26	19	15		
		(g/s)	0.0001	0.0013	0.0001	0.0049	0.0003	0.0008	0.0001	0.0001	0.0001		
		Max Conc.	0.000	0.006	0.000	0.023	0.002	0.004	0.001	0.000	0.000		
		ECR	2.17E-09	1.26E-08				3.08E-07		8.15E-12			3.23E-07
77	IN 23-Oct-98	(ppb)	200	1200	42	3900	170	330	360	67	42		
		(g/s)	0.0011	0.0067	0.0002	0.0218	0.0010	0.0018	0.0020	0.0004	0.0002		
		Max Conc.	0.005	0.032	0.001	0.103	0.004	0.009	0.004	0.002	0.001		
		ECR	3.10E-08	6.31E-08				6.77E-07		2.87E-11			7.71E-07
78	EFF 23-Oct-98	(ppb)	11	140	21	630	38	150	57	14	8		
		(g/s)	0.0001	0.0008	0.0001	0.0035	0.0002	0.0008	0.0003	0.0001	0.0000		
		Max Conc.	0.000	0.004	0.001	0.017	0.001	0.004	0.001	0.000	0.000		
		ECR	1.71E-09	7.36E-09				3.08E-07		6.00E-12			3.17E-07
79	IN 27-Nov-98	(ppb)	99	960	14	2700	170	230	120	56	16		
		(g/s)	0.0006	0.0054	0.0001	0.0151	0.0010	0.0013	0.0007	0.0003	0.0001		
		Max Conc.	0.003	0.025	0.000	0.071	0.004	0.006	0.003	0.001	0.000		

TABLE 14
Summary of Air Dispersion Modeling
Wayne Reclamation and Recycling
Columbia City, Indiana

Scenario No.	Description	Input/Output	Chemicals									Cumulative Cancer Risk
			Tetrachloroethene Carcinogen	Trichloroethene Carcinogen	1,1-Dichloroethene Non-Carcinogen	cis 1,2-Dichloroethene Non-Carcinogen	trans 1,2-Dichloroethene Non-Carcinogen	Vinyl Chloride Carcinogen	1,1,1-Trichloroethane Non-Carcinogen	1,1,2-Dichloroethane Carcinogen	Toluene Non-Carcinogen	
B0	EFF	ECR	1.54E-08	5.05E-08	17	1400	110	4.72E-07	2.40E-11	29	17	5.38E-07
		(ppb)	22	410	0.0001	0.0023	0.0001	0.0078	0.0006	46		
		(g/s)	0.0001	0.0023	0.0001	0.0157	0.0007	0.0019	0.0003	0.0002	0.0001	
		Max Conc	0.001	0.011	0.000	0.037	0.003	0.003	0.001	0.001	0.000	
B1	IN	ECR	3.41E-09	2.16E-08	26	2800	120	340	200	50	26	2.51E-07
		(ppb)	90	710	0.0005	0.0040	0.0001	0.0157	0.0007	0.0011	0.0003	0.0001
		(g/s)	0.0005	0.0040	0.0001	0.0157	0.0007	0.0019	0.0003	0.0002	0.0001	
		Max Conc	0.002	0.019	0.001	0.074	0.003	0.009	0.005	0.001	0.001	
B2	EFF	ECR	1.40E-08	3.73E-08	22	970	61	230	80	19	9	7.49E-07
		(ppb)	39	340	0.0002	0.0019	0.0001	0.0054	0.0003	0.0013	0.0004	0.0001
		(g/s)	0.0002	0.0019	0.0001	0.0054	0.0003	0.0013	0.0004	0.0001	0.0000	
		Max Conc	0.001	0.009	0.001	0.026	0.002	0.006	0.002	0.000	0.000	
B3	IN	ECR	6.05E-09	1.79E-08	22	2000	82	220	120	41	22	4.96E-07
		(ppb)	75	600	0.0004	0.0034	0.0001	0.0112	0.0005	0.0012	0.0007	0.0001
		(g/s)	0.0004	0.0034	0.0001	0.0112	0.0005	0.0012	0.0007	0.0002	0.0001	
		Max Conc	0.002	0.016	0.001	0.053	0.002	0.006	0.003	0.001	0.001	
B4	EFF	ECR	1.16E-08	3.16E-08	7	600	43	47	19	11	7	
		(ppb)	7	110	0.0000	0.0006	0.0000	0.0034	0.0002	0.0003	0.0001	0.0000
		(g/s)	0.0000	0.0006	0.0000	0.0034	0.0002	0.0001	0.0000	0.0000	0.0000	
		Max Conc	0.000	0.003	0.000	0.016	0.001	0.001	0.000	0.000	0.000	
B5	IN	ECR	1.04E-09	5.79E-09	22	4100	230	570	75	72	76	1.03E-07
		(ppb)	22	1000	0.0001	0.0056	0.0001	0.0230	0.0013	0.0032	0.0004	0.0004
		(g/s)	0.0001	0.0056	0.0001	0.0230	0.0013	0.0032	0.0004	0.0004	0.0004	
		Max Conc	0.001	0.026	0.001	0.108	0.006	0.015	0.002	0.002	0.002	
B6	EFF	ECR	3.41E-09	5.26E-08	11	880	58	130	21	13	64	1.23E-06
		(ppb)	15	200	0.0001	0.0011	0.0001	0.0049	0.0003	0.0007	0.0001	0.0004
		(g/s)	0.0001	0.0011	0.0001	0.0049	0.0003	0.0007	0.0001	0.0001	0.0004	
		Max Conc	0.000	0.005	0.000	0.023	0.002	0.003	0.001	0.000	0.002	
B7	IN	ECR	2.33E-09	1.05E-08	22	2400	64	280	130	45	22	
		(ppb)	130	550	0.0007	0.0031	0.0001	0.0134	0.0004	0.0016	0.0007	0.0001
		(g/s)	0.0003	0.014	0.001	0.063	0.002	0.007	0.003	0.001	0.001	
		Max Conc	0.000	0.026	0.001	0.063	0.002	0.007	0.003	0.001	0.001	
B8	EFF	ECR	2.02E-08	2.89E-08	11	180	40	160	48	17	11	6.24E-07
		(ppb)	11	130	0.0001	0.0007	0.0000	0.0050	0.0002	0.0009	0.0003	0.0001
		(g/s)	0.0001	0.0007	0.0000	0.0050	0.0002	0.0009	0.0003	0.0001	0.0001	
		Max Conc	0.000	0.003	0.000	0.023	0.001	0.004	0.001	0.000	0.000	
B9	IN	ECR	1.71E-09	6.84E-09	14	1600	50	360	36	26	20	
		(ppb)	14	220	0.0001	0.0012	0.0001	0.0090	0.0003	0.0020	0.0002	0.0001
		(g/s)	0.0001	0.0012	0.0001	0.0090	0.0003	0.0020	0.0002	0.0001	0.0001	
		Max Conc	0.000	0.006	0.000	0.042	0.001	0.009	0.001	0.001	0.001	
B10	EFF	ECR	2.17E-09	1.16E-08	13	1500	58	280	16	25	13	7.52E-07
		(ppb)	17	300	0.0001	0.0017	0.0001	0.0084	0.0003	0.0016	0.0002	0.0001
		(g/s)	0.0001	0.0017	0.0001	0.0084	0.0003	0.0016	0.0002	0.0001	0.0001	
		Max Conc	0.000	0.008	0.000	0.039	0.002	0.007	0.001	0.001	0.000	
B11	IN	ECR	2.64E-09	1.58E-08	18	2200	52	220	83	29	18	5.93E-07
		(ppb)	110	570	0.0006	0.0032	0.0001	0.0123	0.0003	0.0012	0.0005	0.0002
		(g/s)	0.0006	0.0032	0.0001	0.0123	0.0003	0.0012	0.0005	0.0002	0.0001	
		Max Conc	0.003	0.015	0.000	0.058	0.001	0.006	0.002	0.001	0.000	
B12	EFF	ECR	1.71E-08	3.00E-08	12	1000	36	120	25	13	12	4.98E-07
		(ppb)	52	240	0.0003	0.0013	0.0001	0.0056	0.0002	0.0007	0.0001	0.0001
		(g/s)	0.0003	0.0013	0.0001	0.0056	0.0002	0.0007	0.0001	0.0001	0.0001	
		Max Conc	0.001	0.006	0.000	0.026	0.001	0.003	0.001	0.000	0.000	
		ECR	8.07E-09	1.26E-08				246E-07		5.57E-12		2.67E-07

TABLE 16
Summary of Air Dispersion Modeling
Wayne Reclamation and Recycling
Columbia City, Indiana

Scenario No.	Description	Input/Output	Chemicals									Cumulative Cancer Risk
			Tetrachloroethene Carcinogen	Trichloroethene Carcinogen	1,1-Dichloroethene Non-Carcinogen	cis 1,2-Dichloroethene Non-Carcinogen	trans 1,2-Dichloroethene Non-Carcinogen	Vinyl Chloride Carcinogen	1,1,1-Trichloroethane Non-Carcinogen	1,1-Dichloroethane Carcinogen	Total Non-Carcinogen	
93	IN 24-Jun-99	(ppb)	46	860	17	2300	140	240	43	45	17	
		(g/s)	0.0003	0.0048	0.0001	0.0129	0.0008	0.0013	0.0002	0.0003	0.0001	
		Max Conc	0.001	0.023	0.000	0.060	0.004	0.006	0.001	0.001	0.000	
94	EFF 24-Jun-99	(ppb)	7.14E-09	4.52E-08				4.92E-07		1.91E-11		5.45E-07
		(g/s)	0.0000	0.0007	0.0000	0.0022	0.0002	0.0002	0.0000	0.0001	0.0000	
		Max Conc.	0.000	0.003	0.000	0.010	0.001	0.001	0.000	0.000	0.000	
95	EFF 13-Jul-99	(ppb)	51	440	8	2200	100	340	180	45	8	
		(g/s)	0.0003	0.0025	0.0000	0.0123	0.0006	0.0019	0.0010	0.0003	0.0000	
		Max Conc.	0.001	0.012	0.000	0.058	0.003	0.009	0.005	0.001	0.000	
96	EFF 6-Aug-99	(ppb)	27	810	45	9	140	270	44	45	9	
		(g/s)	0.0002	0.0045	0.0003	0.0001	0.0008	0.0015	0.0002	0.0003	0.0001	
		Max Conc	0.001	0.021	0.001	0.000	0.004	0.007	0.001	0.001	0.000	
97	EFF 1-Sep-99	(ppb)	25	390	4	1600	120	220	200	60	2	
		(g/s)	0.0001	0.0022	0.0000	0.0090	0.0007	0.0012	0.0011	0.0003	0.0000	
		Max Conc	0.001	0.010	0.000	0.042	0.003	0.006	0.005	0.002	0.000	
98	EFF 14-Oct-99	(ppb)	63	1700	9	3300	260	180	99	61	9	
		(g/s)	0.0004	0.0095	0.0001	0.0185	0.0015	0.0010	0.0006	0.0003	0.0001	
		Max Conc	0.002	0.045	0.000	0.087	0.007	0.005	0.003	0.002	0.000	
99	EFF 22-Nov-99	(ppb)	16	390	14	1400	76	200	97	32	14	
		(g/s)	0.0001	0.0022	0.0001	0.0078	0.0004	0.0011	0.0005	0.0002	0.0001	
		Max Conc.	0.000	0.010	0.000	0.037	0.002	0.005	0.003	0.001	0.000	
100	EFF 13-Dec-99	(ppb)	38	520	14	1500	95	200	66	32	14	
		(g/s)	0.0002	0.0029	0.0001	0.0084	0.0005	0.0011	0.0004	0.0002	0.0001	
		Max Conc.	0.001	0.014	0.000	0.039	0.002	0.005	0.002	0.001	0.000	
101	EFF 3-Jan-00	(ppb)	57	440	18	1100	68	94	110	29	18	
		(g/s)	0.0003	0.0025	0.0001	0.0062	0.0004	0.0005	0.0006	0.0002	0.0001	
		Max Conc.	0.001	0.012	0.000	0.029	0.002	0.002	0.003	0.001	0.000	
102	EFF 7-Feb-00	(ppb)	8	220	8	740	55	91	29	17	8	
		(g/s)	0.0000	0.0012	0.0000	0.0041	0.0003	0.0005	0.0002	0.0001	0.0000	
		Max Conc.	0.000	0.006	0.000	0.019	0.001	0.002	0.001	0.000	0.000	
103	EFF 15-Mar-00	(ppb)	88	400	9	1200	46	61	89	25	9	
		(g/s)	0.0005	0.0022	0.0001	0.0067	0.0003	0.0003	0.0005	0.0001	0.0001	
		Max Conc.	0.002	0.011	0.000	0.032	0.001	0.002	0.002	0.001	0.000	
104	EFF 25-Apr-00	(ppb)	21	300	3	2300	83	260	47	31	3	
		(g/s)	0.0001	0.0017	0.0000	0.0129	0.0005	0.0015	0.0003	0.0002	0.0000	
		Max Conc.	0.001	0.008	0.000	0.060	0.002	0.007	0.001	0.001	0.000	
	ECR		3.26E-09	1.58E-08				5.33E-07		1.33E-11		5.52E-07

TABLE 14
Summary of Air Dispersion Modeling
Wayne Reclamation and Recycling
Columbia City, Indiana

Scenario No.	Description	Input/Output	Chemicals										Cumulative Cancer Risk
			Tetrachloroethene Carcinogen	Trichloroethene Carcinogen	1,1-Dichloroethene Non-Carcinogen	cis 1,2-Dichloroethene Non-Carcinogen	trans 1,2-Dichloroethene Non-Carcinogen	Vinyl Chloride Carcinogen	1,1,1-Trichloroethane Non-Carcinogen	1,1-Dichloroethane Carcinogen	Toluene Non-Carcinogen		
105	EFF 24-May-00	(ppb)	110	440	12	1000	71	130	150	30	12		
		(g/s)	0.0006	0.0025	0.0001	0.0056	0.0004	0.0007	0.0008	0.0002	0.0001		
		Max Conc.	0.003	0.012	0.000	0.026	0.002	0.003	0.004	0.001	0.000		
106	EFF 6-Jun-00	(ppb)	171E-08	2.31E-08				2.67E-07		1.29E-11			3.07E-07
		(g/s)	0.0002	0.0021	0.0000	0.0101	0.0005	0.0011	0.0006	0.0002	0.0000		
		Max Conc.	0.001	0.010	0.000	0.047	0.002	0.005	0.003	0.001	0.000		
107	EFF 25-Jul-00	(ppb)	466E-09	2.00E-08				3.90E-07		1.16E-11			4.14E-07
		(g/s)	0.0002	0.0016	0.0001	0.0078	0.0002	0.0011	0.0004	0.0001	0.0001		
		Max Conc.	0.001	0.008	0.000	0.017	0.001	0.005	0.002	0.001	0.000		
108	EFF 4-Aug-00	(ppb)	481E-09	1.53E-08				3.90E-07		9.00E-12			4.10E-07
		(g/s)	56	840	12	2200	100	210	59	30	12		
		Max Conc.	0.003	0.0047	0.0001	0.0123	0.0006	0.0013	0.0003	0.0002	0.0001		
109	EFF 5-Sep-00	(ppb)	869E-09	4.42E-08				4.72E-07		1.29E-11			5.25E-07
		(g/s)	22	540	12	2100	140	210	80	34	12		
		Max Conc.	0.001	0.0030	0.0001	0.0118	0.0008	0.0012	0.0004	0.0002	0.0001		
110	EFF 6-Oct-00	(ppb)	341E-09	2.84E-08				4.31E-07		1.46E-11			4.63E-07
		(g/s)	52	920	18	2200	160	130	93	49	18		
		Max Conc.	0.003	0.0052	0.0001	0.0123	0.0009	0.0007	0.0005	0.0003	0.0001		
111	EFF 7-Nov-00	(ppb)	807E-09	4.84E-08				2.67E-07		2.10E-11			3.23E-07
		(g/s)	110	840	10	1900	97	170	73	36	10		
		Max Conc.	0.003	0.0047	0.0001	0.0106	0.0005	0.0010	0.0004	0.0002	0.0001		
112	EFF 21-Dec-00	(ppb)	590E-09	4.00E-08				3.49E-07		1.54E-11			4.10E-07
		(g/s)	38	760	9	1900	100	190	50	30	9		
		Max Conc.	0.001	0.0043	0.0001	0.0106	0.0006	0.0011	0.0003	0.0002	0.0001		
113	EFF 30-Jan-01	(ppb)	590E-09	4.00E-08				3.90E-07		1.29E-11			4.36E-07
		(g/s)	38	630	9	2000	49	270	53	30	9		
		Max Conc.	0.001	0.0035	0.0001	0.0112	0.0003	0.0015	0.0003	0.0002	0.0001		
114	EFF 26-Feb-01	(ppb)	590E-09	3.31E-08				5.54E-07		1.29E-11			5.93E-07
		(g/s)	140	260	140	1700	1	180	140	140	140		
		Max Conc.	0.004	0.0015	0.0008	0.0093	0.0000	0.0010	0.0008	0.0008	0.0008		
115	EFF 21-Mar-01	(ppb)	217E-08	1.37E-08				3.69E-07		6.00E-11			4.05E-07
		(g/s)	34	340	2	1300	1	190	26	18	4		
		Max Conc.	0.001	0.0019	0.0000	0.0073	0.0000	0.0011	0.0001	0.0001	0.0000		
116	EFF 23-Apr-01	(ppb)	140	160	140	1000	1	160	140	140	140		
		(g/s)	0.0008	0.0009	0.0008	0.0056	0.0000	0.0009	0.0008	0.0008	0.0008		
		Max Conc.	0.004	0.004	0.004	0.026	0.000	0.004	0.004	0.004	0.004		
117	EFF 21-May-01	(ppb)	179E-08	7.89E-09				3.08E-07		6.00E-11			3.58E-07
		(g/s)	150	150	150	630	1	150	150	150	150		
		Max Conc.	0.004	0.0008	0.0004	0.035	0.0000	0.0008	0.0008	0.0008	0.0008		
118	EFF 13-Jun-01	(ppb)	233E-08	7.89E-09				4.31E-07		6.43E-11			3.39E-07
		(g/s)	150	430	150	1400	1	210	150	150	150		
		Max Conc.	0.004	0.0024	0.0008	0.0078	0.0000	0.0012	0.0008	0.0008	0.0008		
	ECR 13-Jun-01	(ppb)	233E-08	2.26E-08				4.31E-07		6.43E-11			4.77E-07

Notes:

1 g/s=Parts per billion x 1000 / (22500 x 2.205 x 3600)

2 Max Conc - The maximum predicted concentration (ug/m³) from ISCLT2 model run output

3 ECR - Excess Cancer Risk = Max. Conc. (ug/m³) x Unit Risk Factor

4. Unit Risk Factors:

Vinyl Chloride- 7.80E-05

1,1-Dichloroethane- 1.63E-08

Trichloroethene- 2.00E-06

Tetrachloroethene- 5.90E-06

5. g/m³(ug/l) * 0.1346/MW

6. Assume MW = 133

7. g/s = (ug/l) * 1.012 x 10⁻³

8. EFF = Sample collected from treatment system effluent

9. IN = Sample collected from treatment system influent

Table 13
Summary of Groundwater Treatment System VOC Influent and Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	IN 7-MAR-95	EFF 7-MAR-95	IN 28-MAR-95	EFF 28-MAR-95	IN 7-NOV-95	EFF 7-NOV-95
1,1-Dichloroethane	4.6	<1	<1	<1	15	<1
1,2-Dichloroethane	1.3	<1	<1	<1	<1	<1
1,1-Dichloroethene	1.4	<1	<1	<1	1.1	<1
cis-1,2-Dichloroethene	1100	45	890	31	1400	41
trans-1,2-Dichloroethene	7.8	<1	25	<1	14	<1
Trichloroethene	170	3.4	82	2.4	100	1.4
Vinyl Chloride	180	<1	300	<1	220	<1
Total VOC Concentration	1465		1300		1751	
<u>Contaminant</u>	IN 21-DEC-95	EFF 21-DEC-95	IN 25-JAN-96	EFF 25-JAN-96	IN 15-FEB-96	EFF 15-FEB-96
1,1-Dichloroethane	<10	<1	<100	<1	<10	<1
1,2-Dichloroethane	<10	<1	<100	<1	<10	<1
1,1-Dichloroethene	<10	<1	<100	<1	<10	<1
cis-1,2-Dichloroethene	330	27	1800	140	2500	120
trans-1,2-Dichloroethene	<10	<1	<100	<1	14	<1
Trichloroethene	16	<1	<100	7.2	110	4.1
Vinyl Chloride	30	<1	330	1.4	620	1.2
Total VOC Concentration	416		2630		3274	
<u>Contaminant</u>	IN 5-APR-96	EFF 5-APR-96	IN 24-May-96	EFF 24-May-96	IN 11-JUN-96	EFF 11-JUN-96
1,1-Dichloroethane	13	<1	14	<1	12	<1
1,2-Dichloroethane	<10	<1	<10	<1	<10	<1
1,1-Dichloroethene	<10	<1	<10	<1	<10	<1
cis-1,2-Dichloroethene	1300	160	1200	35	1000	10
trans-1,2-Dichloroethene	16	<1	15	<1	16	<1
Trichloroethene	97	5	99	<1	93	<1
Vinyl Chloride	210	1	290	<1	150	<1
Total VOC Concentration	1656		1638		1291	
<u>Contaminant</u>	IN 23-JUL-96	EFF 23-JUL-96	IN 22-AUG-96	EFF 22-AUG-96	IN 23-SEP-96	EFF 23-SEP-96
1,1-Dichloroethane	10	<1	<5	<1	10	<1
1,2-Dichloroethane	<10	<1	<5	<1	<1	<1
1,1-Dichloroethene	<10	<1	<5	<1	<1	<1
cis-1,2-Dichloroethene	1300	11	1200	22	390	11
trans-1,2-Dichloroethene	12	<1	<5	<1	10	<1
Trichloroethene	130	1.4	130	<1	61	3.6
Vinyl Chloride	190	<1	160	<2	60	<1
Total VOC Concentration	1662		1510		533	

Notes:

1. All results reported in ug/L (parts per billion).
2. IN = influent sample. EFF = effluent sample.
3. Results indicated for primary detected constituents.

Table 13
Summary of Groundwater Treatment System VOC Influent and Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	IN 14-Oct-96	EFF 14-Oct-96	IN 7-Nov-96	EFF 7-Nov-96	IN 10-Dec-96	EFF 10-Dec-96
1,1-Dichloroethane	6.4	<1	2.4	<1	14	<1
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	670	11	550	5.7	420	<1
trans-1,2-Dichloroethene	8.5	<1	9.6	<1	10	<1
Trichloroethene	89	<1	82	<1	90	<1
Vinyl Chloride	<u>60</u>	<1	<u>51</u>	<1	<u>61</u>	<1
Total VOC Concentration	836		697		597	
<u>Contaminant</u>	IN 8-Jan-97	EFF 8-Jan-97	IN 15-Feb-97	EFF 15-Feb-97	IN 6-Mar-97	EFF 6-Mar-97
1,1-Dichloroethane	19	<1	16	<1	12	<1
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	660	14	1500	76	530	12
trans-1,2-Dichloroethene	19	<1	16	<1	10	<1
Trichloroethene	200	1.4	140	7.7	<1	1.6
Vinyl Chloride	<u>98</u>	<1	<u>120</u>	1	<u>56</u>	<1
Total VOC Concentration	998		1794		611	
<u>Contaminant</u>	IN 18-Apr-97	EFF 18-Apr-97	IN 14-May-97	EFF 14-May-97	IN 12-Jun-97	EFF 12-Jun-97
1,1-Dichloroethane	280	<1	18	<1	15	<1
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	2	<1	1.6	<1	1.1	<1
cis-1,2-Dichloroethene	2500	43	1300	5.4	1200	55
trans-1,2-Dichloroethene	43	<1	20	<1	18	<1
Trichloroethene	110	<1	100	<1	94	1.3
Vinyl Chloride	<u>280</u>	<1	<u>130</u>	<1	<u>130</u>	<1
Total VOC Concentration	3216		1571		1459	
<u>Contaminant</u>	IN 24-Jul-97	EFF 24-Jul-97	IN 14-Aug-97	EFF 14-Aug-97	IN 3-Sep-97	EFF 3-Sep-97
1,1-Dichloroethane	20	<1	3.2	<1	20	<1
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	<1	<1	<1	<1	2	<1
cis-1,2-Dichloroethene	1200	12	670	8.7	2700	200
trans-1,2-Dichloroethene	14	<1	10	<1	33	<1
Trichloroethene	57	<1	82	<1	120	3.5
Vinyl Chloride	<u>60</u>	<1	<u>51</u>	1	<u>360</u>	1
Total VOC Concentration	1353		818		3236	

Notes:

1. All results reported in ug/L (parts per billion).
2. IN = influent sample. EFF = effluent sample.
3. Results indicated for primary detected constituents.

Table 13
Summary of Groundwater Treatment System VOC Influent and Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	IN <u>9-Oct-97</u>	EFF <u>9-Oct-97</u>	IN <u>18-Nov-97</u>	EFF <u>18-Nov-97</u>	IN <u>18-Dec-97</u>	EFF <u>18-Dec-97</u>
1,1-Dichloroethane	30	<1	15	<1	<1	<1
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	1.5	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	2200	29	490	25	1300	33
trans-1,2-Dichloroethene	35	<1	13	<1	20	<1
Trichloroethene	120	<1	50	<1	83	<1
Vinyl Chloride	<u>220</u>	<1	<u>2.3</u>	<1	<u>230</u>	<1
Total VOC Concentration	2608		572		1636	
<u>Contaminant</u>	IN <u>30-Jan-98</u>	EFF <u>30-Jan-98</u>	IN <u>28-Feb-98</u>	EFF <u>28-Feb-98</u>	IN <u>20-Mar-98</u>	EFF <u>20-Mar-98</u>
1,1-Dichloroethane	10	<1	16	<5	11	<5
1,2-Dichloroethane	<1	<1	<5	<5	<5	<5
1,1-Dichloroethene	<1	<1	<5	<5	<5	<5
cis-1,2-Dichloroethene	480	32	860	65	1300	65
trans-1,2-Dichloroethene	20	<1	17	<5	22	<5
Trichloroethene	26	<1	150	<5	190	<5
Vinyl Chloride	<u>200</u>	<1	<u>170</u>	<5	<u>430</u>	<2
Total VOC Concentration	738		1223		1963	
<u>Contaminant</u>	IN <u>29-Apr-98</u>	EFF <u>29-Apr-98</u>	IN <u>21-May-98</u>	EFF <u>21-May-98</u>	IN <u>8-Jun-98</u>	EFF <u>8-Jun-98</u>
1,1-Dichloroethane	15	<5.0	18	<5.0	25	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	1300	110	2000	170	1500	170
trans-1,2-Dichloroethene	17	<5.0	29	<5.0	21	<5.0
Trichloroethene	140	<5.0	190	<5.0	240	11
Vinyl Chloride	<u>240</u>	<2.0	<u>480</u>	<2.0	<u>240</u>	<2.0
Total VOC Concentration	1722		2727		2036	
<u>Contaminant</u>	IN <u>13-Jul-98</u>	EFF <u>13-Jul-98</u>	IN <u>6-Aug-98</u>	EFF <u>6-Aug-98</u>	IN <u>28-Sep-98</u>	EFF <u>28-Sep-98</u>
1,1-Dichloroethane	21	<5.0	<50	<5.0	13	<5.0
1,2-Dichloroethane	<5.0	<5.0	<50	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<5.0	<50	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	1500	40	1000	46	730	23
trans-1,2-Dichloroethene	21	<5.0	<50	<5.0	18	<5.0
Trichloroethene	180	<5.0	<50	<5.0	110	<5.0
Vinyl Chloride	<u>420</u>	<2.0	<u>≤20</u>	<2.0	<u>150</u>	<2.0
Total VOC Concentration	2152		1270		1031	

Notes:

1. All results reported in ug/L (parts per billion).
2. IN = influent sample. EFF = effluent sample.
3. Results indicated for primary detected constituents.

Table 13
Summary of Groundwater Treatment System VOC Influent and Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	IN 14-Oct-98	EFF 14-Oct-98	IN 28-Nov-98	EFF 28-Nov-98	IN 16-Dec-98	EFF 16-Dec-98
1,1-Dichloroethane	15	<5.0	19	<5.0	<200	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<200	<5.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<200	<5.0
cis-1,2-Dichloroethene	280	26	1100	<5.0	1400	34
trans-1,2-Dichloroethene	19	<5.0	22	<5.0	<200	<5.0
Trichloroethene	83	<5.0	110	53	<200	<5.0
Vinyl Chloride	<u>110</u>	<2.0	<u>140</u>	<2.0	<u>≤80</u>	<2.0
Total VOC Concentration	517		1401		2480	
<u>Contaminant</u>	IN 30-Jan-99	EFF 30-Jan-99	IN 22-Feb-99	EFF 22-Feb-99	IN 23-Mar-99	EFF 23-Mar-99
1,1-Dichloroethane	<50	<5	<5	<5	11	<5
1,2-Dichloroethane	<50	<5	<5	<5	<5	<5
1,1-Dichloroethene	<50	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	1100	31	1100	66	780	77
trans-1,2-Dichloroethene	<50	<5	<5	<5	8.7	<5
Trichloroethene	210	<5	210	5.6	110	<5
Vinyl Chloride	<u>87</u>	<2	<u>120</u>	<2	<u>120</u>	<2
Total VOC Concentration	1597		1450		1040	
<u>Contaminant</u>	IN 21-Apr-99	EFF 21-Apr-99	IN 17-May-99	EFF 17-May-99	IN 22-Jun-99	EFF 22-Jun-99
1,1-Dichloroethane	<100	<5.0	<50	<5.0	<100	<5.0
1,2-Dichloroethane	<100	<5.0	<50	<5.0	<100	<5.0
1,1-Dichloroethene	<100	<5.0	<50	<5.0	<100	<5.0
cis-1,2-Dichloroethene	1700	140	1200	200	1200	200
trans-1,2-Dichloroethene	<100	<5.0	<50	<5.0	<100	<5.0
Trichloroethene	260	6.3	120	<5.0	120	7
Vinyl Chloride	<u>210</u>	<2.0	<u>100</u>	<2.0	<u>86</u>	<2.0
Total VOC Concentration	2570		1620		1806	
<u>Contaminant</u>	IN 13-Jul-99	EFF 13-Jul-99	IN 6-Aug-99	EFF 6-Aug-99	IN 1-Sep-99	EFF 1-Sep-99
1,1-Dichloroethane	16	<5.0	14	<5.0	14	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	2000	250	1400	170	680	140
trans-1,2-Dichloroethene	39	<5.0	14	<5.0	13	<5.0
Trichloroethene	240	14	150	5.4	170	7.7
Vinyl Chloride	<u>160</u>	<2.0	<u>120</u>	<2.0	<u>150</u>	<2.0
Total VOC Concentration	2465		1708		1037	

Notes:

1. All results reported in ug/L (parts per billion).
2. IN = influent sample. EFF = effluent sample.
3. Results indicated for primary detected constituents.

Table 13
Summary of Groundwater Treatment System VOC Influent and Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	IN 14-Oct-99	EFF 14-Oct-99	IN 22-Nov-99	EFF 22-Nov-99	IN 15-Dec-99	EFF 15-Dec-99
1,1-Dichloroethane	12	<5.0	<5.0	<5.0	14	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	1500	370	350	20	920	32
trans-1,2-Dichloroethene	19	<5.0	5.3	<5.0	13	<5.0
Trichloroethene	<100	22	61	<5.0	120	<5.0
Vinyl Chloride	120	<5.0	28	<5.0	120	<5.0
Total VOC Concentration	1761		459		1197	
<u>Contaminant</u>	IN 3-Jan-00	EFF 3-Jan-00	IN 7-Feb-00	EFF 7-Feb-00	IN 15-Mar-00	EFF 15-Mar-00
1,1-Dichloroethane	9.7	<5.0	<7.0	<5.0	<50	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<50	<5.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<50	<5.0
cis-1,2-Dichloroethene	460	11	820	25	730	21
trans-1,2-Dichloroethene	7	<5.0	14	<5.0	<50	<5.0
Trichloroethene	60	<5.0	<100	<5.0	67	<5.0
Vinyl Chloride	93	<5.0	120	<5.0	84	<5.0
Total VOC Concentration	640		1071		1081	
<u>Contaminant</u>	IN 18-Apr-00	EFF 18-Apr-00	IN 24-May-00	EFF 24-May-00	IN 6-Jun-00	EFF 6-Jun-00
1,1-Dichloroethane	18	<5.0	12	<5.0	11	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	1500	50	430	14	1200	34
trans-1,2-Dichloroethene	24	<5.0	11	<5.0	19	<5.0
Trichloroethene	250	<5.0	22	<5.0	150	<5.0
Vinyl Chloride	170	<5.0	170	<5.0	170	<5.0
Total VOC Concentration	1972		655		1560	
<u>Contaminant</u>	IN 26-Jul-00	EFF 26-Jul-00	IN 4-Aug-00	EFF 4-Aug-00	IN 7-Sep-00	EFF 7-Sep-00
1,1-Dichloroethane	27	<5.0	23	<5.0	19	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	2000	140	1500	130	1200	100
trans-1,2-Dichloroethene	34	<5.0	22	<5.0	20	<5.0
Trichloroethene	220	<5.0	170	<5.0	180	<5.0
Vinyl Chloride	190	<2.0	180	<2.0	150	<2.0
Total VOC Concentration	2481		1905		1579	

Notes:

1. All results reported in ug/L (parts per billion).
2. IN = influent sample. EFF = effluent sample.
3. Results indicated for primary detected constituents.

Table 13
Summary of Groundwater Treatment System VOC Influent and Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

<u>Contaminant</u>	IN <u>6-Oct-00</u>	EFF <u>6-Oct-00</u>	IN <u>7-Nov-00</u>	EFF <u>7-Nov-00</u>	IN <u>21-Dec-00</u>	EFF <u>21-Dec-00</u>
1,1-Dichloroethane	21	<5.0	18	<5.0	16	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<5.0	19	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	1700	120	1300	150	1500	150
trans-1,2-Dichloroethene	17	<5.0	19	<5.0	28	<5.0
Trichloroethene	120	<5.0	210	6.5	240	6.7
Vinyl Chloride	<u>170</u>	<2.0	<u>130</u>	<2.0	<u>170</u>	<2.0
Total VOC Concentration	2038		1701		1964	
<u>Contaminant</u>	IN <u>30-Jan-01</u>	EFF <u>30-Jan-01</u>	IN <u>26-Feb-01</u>	EFF <u>26-Feb-01</u>	IN <u>21-Mar-01</u>	EFF <u>21-Mar-01</u>
1,1-Dichloroethane	16	<5.0	<5.0	<5.0	20	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	20	<5.0
cis-1,2-Dichloroethene	1900	250	1500	220	1700	370
trans-1,2-Dichloroethene	29	<5.0	62	<5.0	22	<5.0
Trichloroethene	380	23	240	21	220	50
Vinyl Chloride	<u>230</u>	<2.0	<u>160</u>	4.5	<u>180</u>	32
Total VOC Concentration	2565		1977		2149	
<u>Contaminant</u>	IN <u>23-Apr-01</u>	EFF <u>23-Apr-01</u>	IN <u>21-May-01</u>	EFF <u>21-May-01</u>	IN <u>13-Jun-01</u>	EFF <u>13-Jun-01</u>
1,1-Dichloroethane	<50	<20	<50	<5.0	<20	<5.0
1,2-Dichloroethane	<50	<20	<50	<5.0	<20	<5.0
1,1-Dichloroethene	<50	<20	<50	<5.0	<20	<5.0
cis-1,2-Dichloroethene	1700	470	1600	110	1600	100
trans-1,2-Dichloroethene	<50	<20	<50	<5.0	<20	<5.0
Trichloroethene	250	60	200	5.2	96	<5.0
Vinyl Chloride	<u>180</u>	34	<u>180</u>	<2.0	<u>110</u>	<2.0
Total VOC Concentration	2330		2180		1886	

Notes:

1. All results reported in ug/L (parts per billion).
2. IN = influent sample. EFF = effluent sample.
3. Results indicated for primary detected constituents.

Table 14
Summary of Groundwater Treatment System Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Date:	3/7/95	3/28/95	11/7/95	12/21/95
Total Metals (mg/L):				
Arsenic	0.008	0.005	0.003	0.006
Beryllium	<0.0002	<0.005	<0.005	<0.005
Cadmium	<0.0002	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.02	<0.01	<0.01
Lead	<0.0015	<0.10	<0.10	<0.10
Mercury	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.20	<0.20	<0.20	<0.20
Nickel	<0.02	<0.02	<0.02	<0.02
Potassium	14.1	12.7	11.4	11.5
Selenium	<0.002	<0.002	<0.002	<0.002
Silver	<0.01	<0.01	<0.01	<0.01
Zinc	0.02	<0.01	0.11	0.15
Inorganics/Wet Chemistry (mg/L):				
BOD	<1	<1	2	2
COD	21	31	26	<20
Total Cyanide	<0.005	<0.005	<0.005	<0.005
Oil and Grease	<1	<1	<1	1
pH	8.15	8.04	8.24	7.74
Total Phenols	<0.005	<0.005	<0.005	<0.005
Total Phosphorus	0.73	1.14	2.07	0.03
Surfactants (MBAs)	0.080	0.007	0.079	0.040
Total Solids	830	882	866	864
Total Suspended Solids	15	15	5	13
Nitrate/Nitrite Nitrogen	NA	0.280	0.03	<0.02
Ammonia Nitrogen	1.55	1.49	1.31	1.44
Total Kjeldahl Nitrogen	1.79	1.77	1.41	1.62
PCBs (ug/L):				
Aroclor 1016	<0.50	<0.50	<0.50	<0.50
Aroclor 1221	<1.0	<1.0	<1.0	<1.0
Aroclor 1232	<1.0	<1.0	<1.0	<1.0
Aroclor 1242	<0.50	<0.50	<0.50	<0.50
Aroclor 1248	<0.50	<0.50	<0.50	<0.50
Aroclor 1254	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	<1.0	<1.0	<1.0	<1.0

Notes:

1. NA = Not Analyzed.

Table 14
Summary of Groundwater Treatment System Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Date:	1/25/96	2/15/96	4/5/96	5/16/96	6/11/96
Total Metals (mg/L):					
Arsenic	0.003	0.007	<0.001	0.005	0.006
Beryllium	<0.005	<0.005	<0.005	<0.005	<0.005
Cadmium	<0.005	<0.005	<0.005	0.008	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.02	<0.01	<0.01	<0.01
Lead	<0.10	<0.10	<0.10	<0.10	<0.10
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.02	<0.02	0.02	0.02	<0.02
Potassium	15.0	16.5	15.8	14.0	11.2
Selenium	<0.002	<0.002	<0.004	<0.002	<0.0020
Silver	<0.01	<0.01	0.01	<0.01	<0.01
Zinc	<0.01	0.02	0.02	0.02	<0.03
Inorganics/Wet Chemistry (mg/L):					
BOD	<1	2	<1	1	7
COD	27	23	<20	<20	<20
Total Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005
Oil and Grease	2	<1	<1	<1	<1
pH	8.08	8.31	8.02	8.06	8.25
Total Phenols	<0.005	<0.005	<0.005	<0.005	<0.005
Total Phosphorus	1.56	0.67	0.75	0.82	0.83
Surfactants (MBAs)	0.050	0.056	0.061	0.053	0.056
Total Solids	1000	890	972	964	1170
Total Suspended Solids	19	10	14	6	6
Nitrate/Nitrite Nitrogen	0.12	0.07	0.11	0.14	0.67
Ammonia Nitrogen	1.21	1.46	1.19	1.20	0.85
Total Kjeldahl Nitrogen	1.55	1.98	1.63	1.48	0.83
PCBs (ug/L):					
Aroclor 1016	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1221	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1232	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1242	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1248	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1254	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

- NA = Not Analyzed.

Table 14
Summary of Groundwater Treatment System Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Date:	7/23/96	8/22/96	9/23/96	10/14/96	11/7/96	12/10/96
Total Metals (mg/L):						
Arsenic	0.006	0.004	0.0035	0.0029	0.0053	0.0068
Beryllium	<0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cadmium	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Chromium	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010
Copper	0.02	0.02	0.066	0.022	0.044	<0.020
Lead	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Mercury	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020
Molybdenum	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.02	0.02	<0.020	<0.020	<0.020	<0.020
Potassium	12.8	14.2	13.0	14.0	13.0	11.0
Selenium	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Silver	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010
Zinc	0.05	<0.01	<0.010	<0.010	<0.050	<0.050
Inorganics/Wet Chemistry (mg/L):						
BOD	5	2	6	8.8	<8.0	<4.0
COD	22	<20	23	22	24	25
Total Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Oil and Grease	<1	1	<1.0	<5.0	<1.0	<5.0
pH	8.27	7.95	8.35	7.82	7.98	7.65
Total Phenols	<0.005	<0.005	0.01	<0.01	<0.01	<0.01
Total Phosphorus	1.09	0.84	1.2	1.2	1.1	1.5
Surfactants (MBAs)	0.050	0.025	<0.1	<0.1	<0.1	<0.1
Total Solids	1160	NA	920	930	930	1100
Total Suspended Solids	7	4	<1	13	<10	11
Nitrate/Nitrite Nitrogen	0.44	0.45	0.32	0.37	0.38	0.31
Ammonia Nitrogen	0.91	0.80	0.87	0.69	0.68	0.5081
Total Kjeldahl Nitrogen	1.23	0.98	0.43	<0.15	<0.15	0.29
PCBs (ug/L):						
Aroclor 1016	<0.50	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1221	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1232	<1.0	<0.4	<0.4	<0.4	<0.4	<0.4
Aroclor 1242	<0.50	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1248	<0.50	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1254	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1260	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2

Notes:

1. NA = Not Analyzed.

Table 14
Summary of Groundwater Treatment System Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Date:	1/8/97	2/15/97	3/6/97	4/18/97	5/14/97	6/12/97
Total Metals (mg/L):						
Arsenic	0.0046	0.014	0.0032	0.003	0.0041	0.0078
Beryllium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cadmium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chromium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050
Copper	<0.020	0.098	<0.020	<0.020	<0.020	0.03
Lead	<0.10	<0.10	<0.10	<0.10	<0.10	NA
Mercury	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Molybdenum	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.020	0.039	<0.020	<0.020	<0.020	<0.050
Potassium	12.0	12.0	11.0	11.0	12.0	10.0
Selenium	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Silver	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.050	0.21	<0.050	<0.050	<0.010	0.039
Inorganics/Wet Chemistry (mg/L):						
BOD	<2.0	<4.0	<8.0	7.2	<2.0	<4.0
COD	32	27	25	26	28	36
Total Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Oil and Grease	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
pH	8.15	8.16	7.96	8.58	7.41	8.17
Total Phenols	<0.01	0.013	<0.01	<0.01	<0.02	<0.01
Total Phosphorus	1.6	1.1	1.1	0.96	0.95	1.5
Surfactants (MBAs)	<0.1	<0.1	<0.1	<0.1	Negative	Positive
Total Solids	1100	1000	1100	1100	970	840
Total Suspended Solids	<10	18	<10	<10	<10	<10
Nitrate/Nitrite Nitrogen	0.43	0.49	1.3	0.32	0.39	0.45
Ammonia Nitrogen	0.61	0.7	0.49	0.68	0.46	0.42
Total Kjeldahl Nitrogen	0.7	0.18	1.3	<0.15	0.44	2.5
PCBs (ug/L):						
Aroclor 1016	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1221	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1232	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Aroclor 1242	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1248	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1254	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1260	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Notes:

1. NA = Not Analyzed.

Table 14
Summary of Groundwater Treatment System Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Date:	6/12/97	7/24/97	8/14/97	9/3/97	10/9/97
Total Metals (mg/L):					
Arsenic	0.0078	0.003	0.0017	0.011	0.0056
Beryllium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cadmium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chromium	<0.050	<0.010	<0.010	<0.010	<0.010
Copper	0.03	0.026	<0.020	0.027	<0.020
Lead	NA	<0.10	<0.10	<0.10	<0.10
Mercury	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Molybdenum	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.050	<0.020	<0.020	<0.020	<0.020
Potassium	10.0	8.9	9.1	13.0	13.0
Selenium	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Silver	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	0.039	<0.020	<0.020	<0.020	<0.020
Inorganics/Wet Chemistry (mg/L):					
BOD	<4.0	<2.0	<2.0	<2.0	2.3
COD	36	27	36	31	25
Total Cyanide	<0.005	<0.005	<0.0050	<0.0050	<0.0050
Oil and Grease	<5.0	<5.0	<5.0	<1.0	<1.0
pH	8.17	8.18	8.21	8.29	8.31
Total Phenols	<0.01	0.02	<0.01	<0.01	<0.01
Total Phosphorus	1.5	0.82	2.2	0.84	0.9
Surfactants (MBAs)	Positive	Negative	Negative	Negative	Positive
Total Solids	840	960	1000	1100	1100
Total Suspended Solids	<10	10	<10	10	<10
Nitrate/Nitrite Nitrogen	0.45	0.35	0.29	0.18	0.064
Ammonia Nitrogen	0.42	0.48	0.33	0.91	0.74
Total Kjeldahl Nitrogen	2.5	0.6	8	0.8	0.28
PCBs (ug/L):					
Aroclor 1016	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1221	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1232	<0.4	<0.4	<0.4	<0.4	<0.4
Aroclor 1242	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1248	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1254	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1260	<0.2	<0.2	<0.2	<0.2	<0.2

Notes:

1. NA = Not Analyzed.

Table 14
Summary of Groundwater Treatment System Effluent Sampling
Wayne Reclamation and Recycling
Columbia City, Indiana

Date:	11/18/97	12/18/97	1/30/98	10/13/98	10/13/99	10/6/00
Total Metals (mg/L):						
Arsenic	0.015	0.0044	0.005	<0.005	<0.005	<0.028
Beryllium	<0.0050	<0.0050	<0.0050	<0.003	<0.003	<0.003
Cadmium	<0.0050	<0.0050	<0.0050	<0.005	<0.010	<0.005
Chromium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	0.032	<0.020	1.9	<0.010	<0.005	<0.005
Lead	<0.10	<0.10	<0.10	<0.005	<0.005	<0.005
Mercury	<0.00020	<0.00020	<0.00020	<0.0005	<0.0005	<0.0005
Molybdenum	<0.20	<0.20	<0.20	<0.020	<0.020	<0.020
Nickel	<0.050	<0.020	<0.020	<0.020	<0.020	<0.005
Potassium	12.0	12.0	9.5	11.0	9.0	9.0
Selenium	<0.0020	<0.0020	<0.0020	<0.005	<0.005	<0.036
Silver	<0.010	<0.010	<0.010	<0.020	<0.001	<0.005
Zinc	0.054	<0.020	<0.020	<0.020	<0.020	<0.020
Inorganics/Wet Chemistry (mg/L):						
BOD	<2.0	<2.0	<2.0	<5	6	8
COD	23	18	21	<10	<10	16
Total Cyanide	<0.005	<0.005	<0.0050	<0.005	<0.005	<0.020
Oil and Grease	<5.0	<5.0	<5.0	<5.0	6	6
pH	8.3	8.27	7.65	NA	7.2	7.2
Total Phenols	<0.01	<0.01	0.17	<0.010	<0.010	<0.005
Total Phosphorus	0.93	0.75	0.96	<0.05	0.48	<0.15
Surfactants (MBAs)	Negative	Negative	Negative	Positive	Positive	Negative
Total Solids	1100	820	850	830	790	820
Total Suspended Solids	11	14	19	27	<5	5
Nitrate/Nitrite Nitrogen	0.32	0.33	0.44	0.036	0.04	0.033
Ammonia Nitrogen	0.72	0.15	0.28	1.00	0.80	1.10
Total Kjeldahl Nitrogen	47	1.21	0.98	1.6	1.09	1.5
PCBs (ug/L):						
Aroclor 1016	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0
Aroclor 1221	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0
Aroclor 1232	<0.4	<0.4	<0.4	<1.0	<0.7	<1.0
Aroclor 1242	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0
Aroclor 1248	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0
Aroclor 1254	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0
Aroclor 1260	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0

Notes:

1. NA = Not Analyzed.

Table 15
Columbia City Municipal Water Supply Well Results - VOCs and PCBs
Wayne Reclamation and Recycling
Columbia City, Indiana

Sampling Location Sample Date	Municipal Well No. 7 10/14/98	Municipal Well No. 8 10/14/98	Municipal Well No. 7 12/9/99	Municipal Well No. 8 12/9/99	Municipal Well No. 7 10/3/00	Municipal Well No. 8 10/3/00
VOCs (ug/L):						
Benzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	<10	<10	<10	<10	<10	<10
Carbon disulfide	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorodibromomethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	<10	<10	<10	<10	<10	<10
Chloroform	<5.0	<5.0	<20	<20	<20	<20
Chloromethane	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone	<50	<50	<50	<50	<50	<50
Methylene chloride	<10	<10	<10	<10	<10	<10
Methyl-ethyl-ketone	<50	<50	<50	<50	<50	<50
4-Methyl-2-pentanone	<50	<50	<50	<50	<50	<50
Styrene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	<2	<2	<5.0	<5.0	<2.0	<2.0
Total Xylenes	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
PCBs (ug/L):						
Aroclor 1016	<1	<1	NA	NA	NA	NA
Aroclor 1221	<1	<1	NA	NA	NA	NA
Aroclor 1232	<1	<1	NA	NA	NA	NA
Aroclor 1242	<1	<1	NA	NA	NA	NA
Aroclor 1248	<1	<1	NA	NA	NA	NA
Aroclor 1254	<1	<1	NA	NA	NA	NA
Aroclor 1260	<1	<1	NA	NA	NA	NA

Notes:

1. NA = Not Analyzed

Table 16
Columbia City Municipal Water Supply Well Results - Metals and Inorganics
Wayne Reclamation and Recycling
Columbia City, Indiana

	Municipal Well No. 7 10/14/98	Municipal Well No. 8 10/14/98	Municipal Well No. 7 12/9/99	Municipal Well No. 8 12/9/99	Municipal Well No. 7 10/3/00	Municipal Well No. 8 10/3/00
Total Metals (mg/L):						
Aluminum	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Antimony	<0.005	<0.005	<0.005	<0.005	<0.026	<0.026
Arsenic	0.0083	0.0071	0.0091	0.0056	<0.028	<0.028
Barium	0.15	0.13	0.12	0.11	0.15	0.13
Beryllium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Cadmium	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005
Calcium	86	83	70	67	87	80
Chromium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cobalt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Copper	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005
Iron	2	1.6	1.6	1.4	1.8	1.5
Lead	<0.005	<0.005	<0.005	<0.005	<0.018	<0.018
Magnesium	35	36	28	29	34	34
Manganese	0.16	0.14	0.11	0.12	0.12	0.13
Mercury	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Molybdenum	0.023	0.031	0.025	0.031	<0.020	0.021
Nickel	<0.020	<0.020	<0.020	<0.020	<0.002	<0.0068
Potassium	1.4	1.5	<5.0	<5.0	<5.0	<5.0
Selenium	<0.005	<0.005	<0.005	<0.005	<0.036	<0.005
Silver	<0.020	<0.020	<0.020	<0.020	<0.005	<0.005
Sodium	13	17	11	13	14	17
Thallium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Vanadium	<0.02	<0.02	<0.020	<0.020	<0.02	<0.02
Zinc	0.024	<0.020	<0.020	<0.020	<0.020	0.04
Inorganics/Wet Chemistry (mg/L):						
BOD	<5	<5	NA	NA	NA	NA
COD	<10	<10	NA	NA	NA	NA
Total Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Oil and Grease	<5	<5	NA	NA	NA	NA
Total Phenols	<0.010	<0.010	NA	NA	NA	NA
Total Phosphorus	<0.05	<0.05	NA	NA	NA	NA
Surfactants (MBAs)	0.10	<0.1	NA	NA	NA	NA
Total Suspended Solids	<5	<5	NA	NA	NA	NA
Nitrite Nitrogen	0.021	0.022	NA	NA	NA	NA
Nitrate Nitrogen	<0.02	<0.02	NA	NA	NA	NA
Ammonia Nitrogen	0.38	0.41	NA	NA	NA	NA
Total Kjeldahl Nitrogen	0.64	0.73	NA	NA	NA	NA

Notes:

1. NA = Not Analyzed

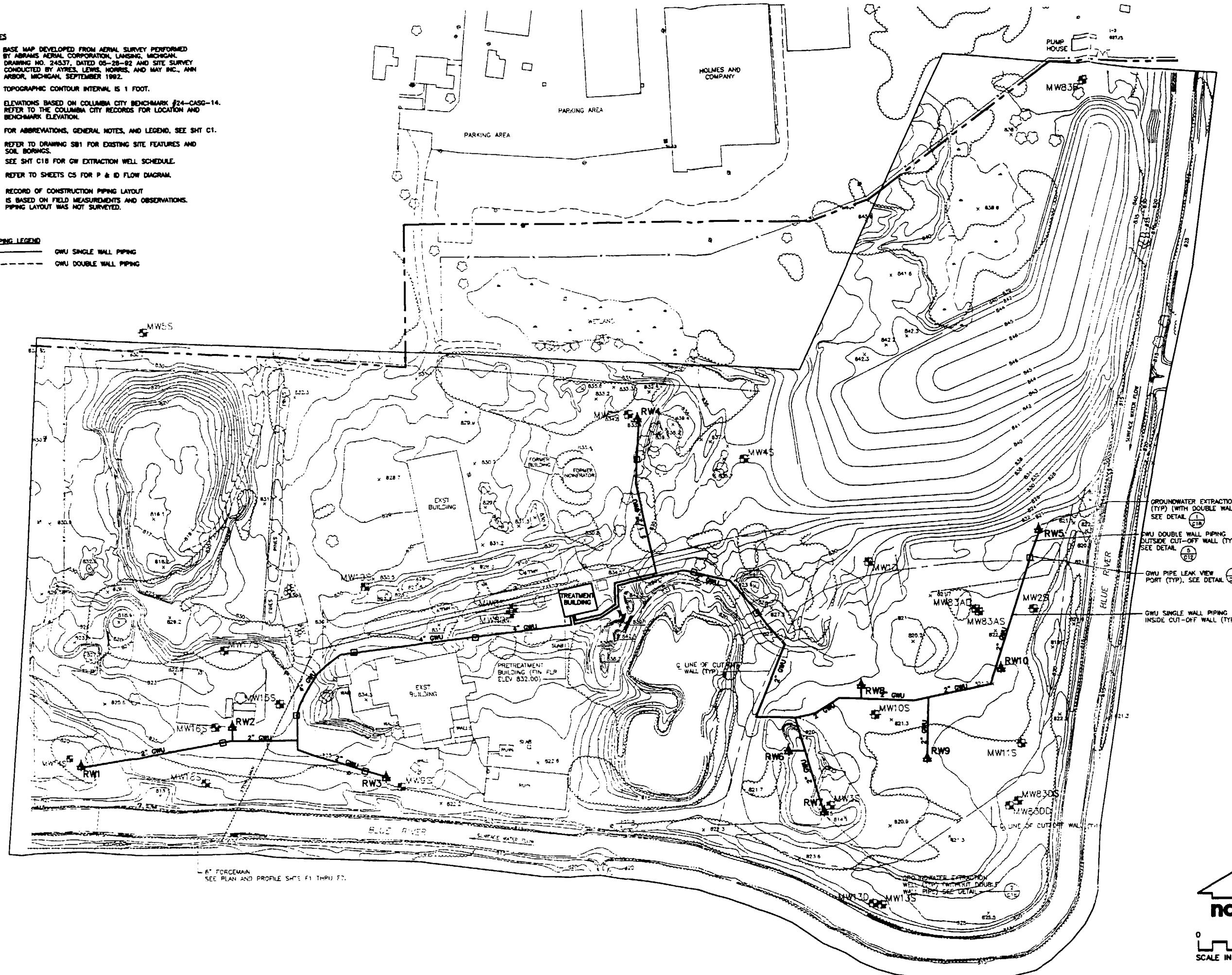
FIGURES

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-29-82 AND SITE SURVEY CONDUCTED BY AVRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1982.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. FOR ABBREVIATIONS, GENERAL NOTES, AND LEGEND, SEE SHT C1.
5. REFER TO DRAWING S81 FOR EXISTING SITE FEATURES AND SOIL BORINGS.
6. SEE SHT C18 FOR GW EXTRACTION WELL SCHEDULE.
7. REFER TO SHEETS CS FOR P & ID FLOW DIAGRAM.
8. RECORD OF CONSTRUCTION PIPING LAYOUT IS BASED ON FIELD MEASUREMENTS AND OBSERVATIONS. PIPING LAYOUT WAS NOT SURVEYED.

PIPING LEGEND

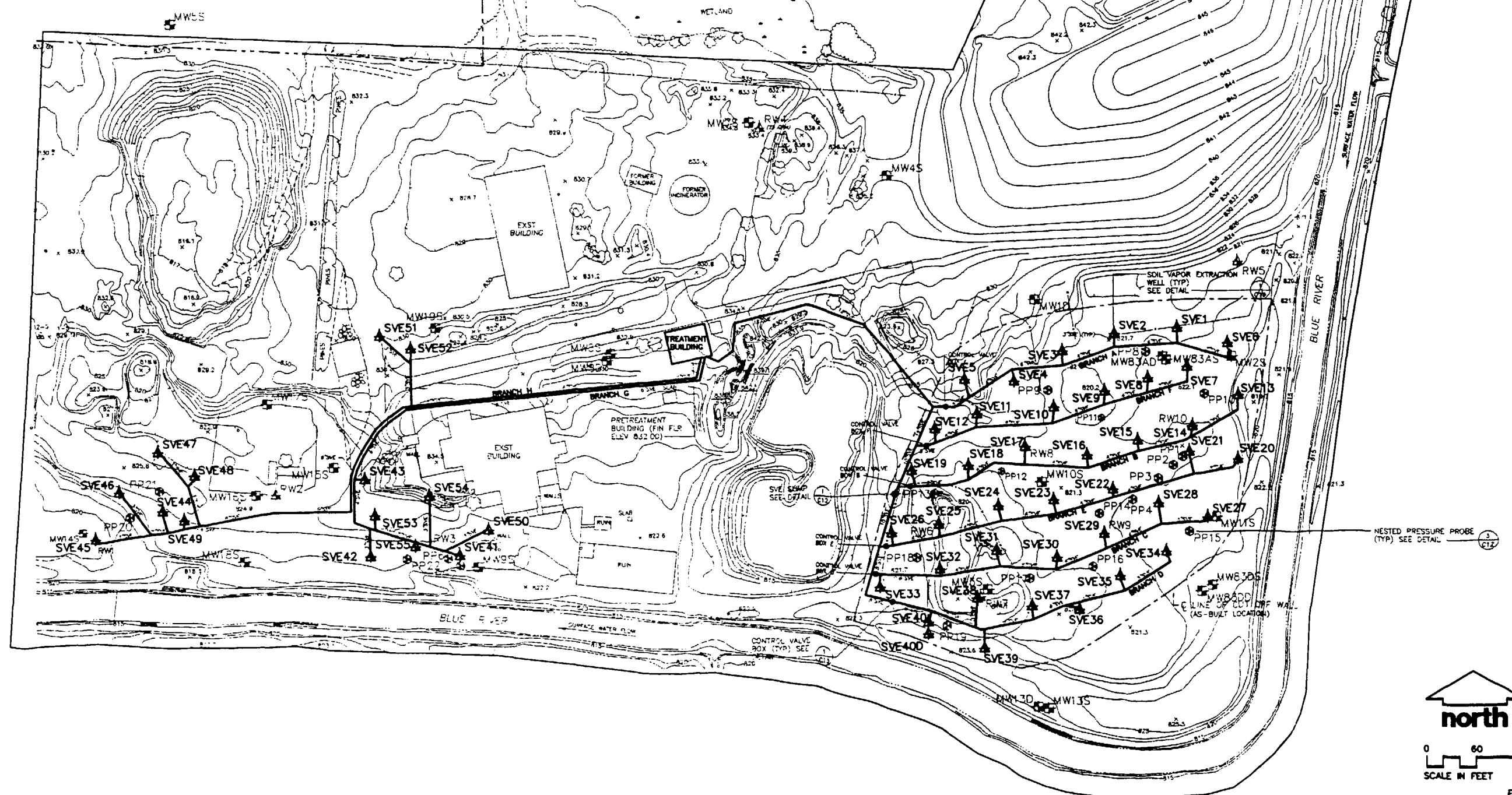
- CMU SINGLE WALL PIPING
- - - CMU DOUBLE WALL PIPING



Reviewed by	CSY,MJS,BTM	Approved by	Date
Initial Review			
Final Review			
Comments			
Reviewed by	CSY,MJS,BTM	Approved by	Date
Initial Review			
Final Review			
Comments			
Reviewed by	CSY,MJS,BTM	Approved by	Date
Initial Review			
Final Review			
Comments			
Reviewed by	CSY,MJS,BTM	Approved by	Date
Initial Review			
Final Review			
Comments			
Reviewed by	CSY,MJS,BTM	Approved by	Date
Initial Review			
Final Review			
Comments			
Reviewed by	CSY,MJS,BTM	Approved by	Date
Initial Review			
Final Review			
Comments			
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Reviewed by	CSY,MJS,BTM	Approved by	Date
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Final Review			

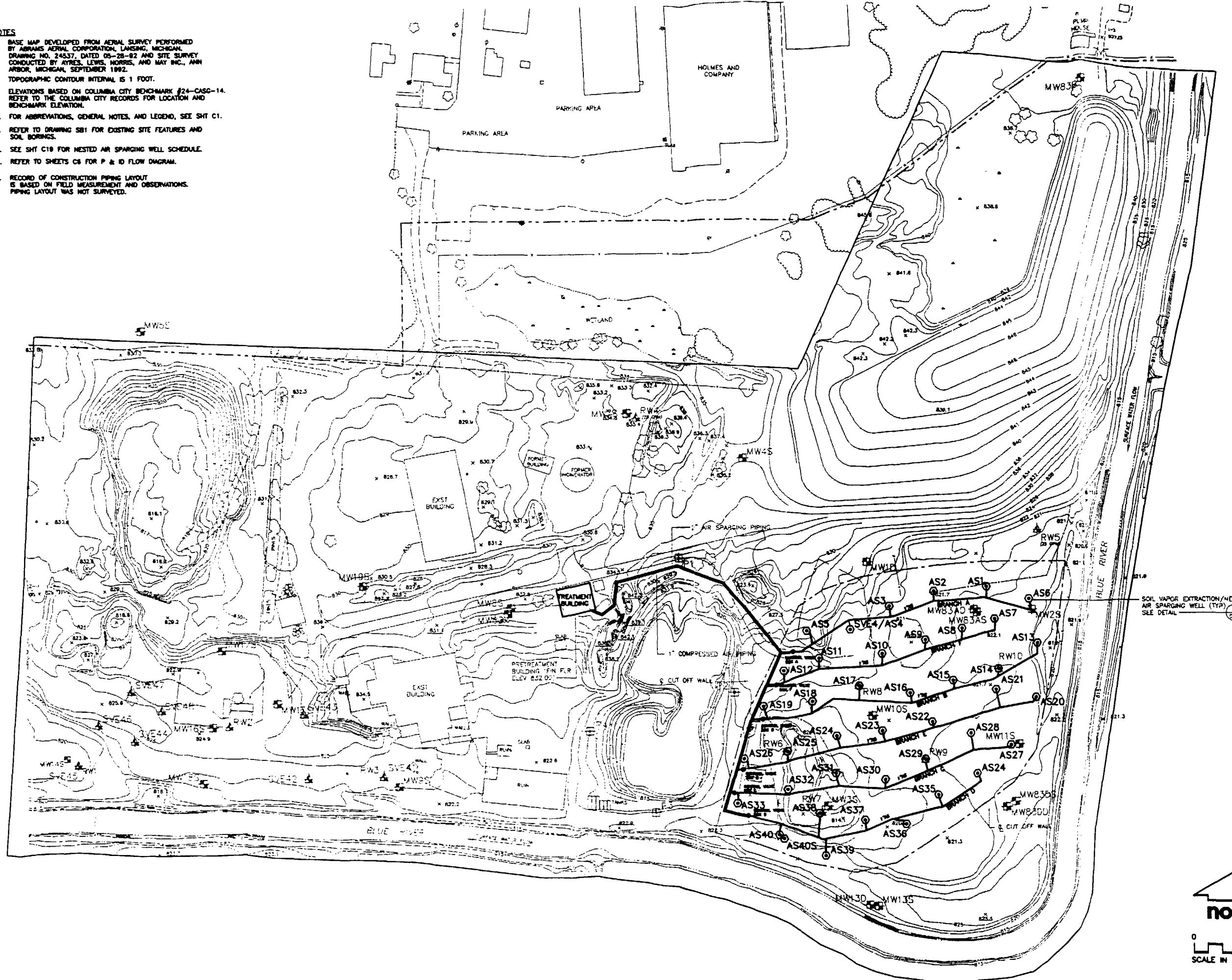
NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY ATYES, LEWIS, MORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASC-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. FOR ABBREVIATIONS, GENERAL NOTES, AND LEGEND, SEE SHT C1.
5. REFER TO DRAWING SHT1 FOR EXISTING SITE FEATURES AND SOIL BORINGS.
6. SEE SHT C19 FOR SOIL VAPOR EXTRACTION WELL SCHEDULE.
7. REFER TO SHEETS C6 FOR P & ID FLOW DIAGRAM.
8. RECORD OF CONSTRUCTION PIPING LAYOUT IS BASED ON FIELD MEASUREMENTS AND OBSERVATIONS. PIPING LAYOUT WAS NOT SURVEYED.



NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 08-28-92 AND SITE SURVEY CONDUCTED BY ATYES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASC-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. FOR ABBREVIATIONS, GENERAL NOTES, AND LEGEND, SEE SHT C1.
5. REFER TO DRAWING SB1 FOR EXISTING SITE FEATURES AND SOIL BORINGS.
6. SEE SHT C19 FOR NESTED AIR SPARGING WELL SCHEDULE.
7. REFER TO SHEETS C6 FOR P & ID FLOW DIAGRAM.
8. RECORD OF CONSTRUCTION PIPING LAYOUT IS BASED ON FIELD MEASUREMENT AND OBSERVATIONS. PIPING LAYOUT WAS NOT SURVEYED.



Drawn by	CST/MB/MAC/BTM	Drawn by	EPA
Approved by		Approved by	
Date	1/10/93	Date	1/10/93
Issuing Organization	RECORD OF CONSTRUCTION WAYNE RECLAMATION AND RECYCLING, INC. COLUMBIA CITY, INDIANA		
Printed			
Sheet Number			
Drawing Number	70210D15 C11		
MONTGOMERY WATSON			

FIGURE 3

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN, DRAWING NO. 24337, DATED 05-26-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, MORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATION FOR MWB3AD SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND

809.00 — GROUNDWATER CONTOUR (IN FEET)
REFERENCED TO MEAN SEA LEVEL
(DASHED WHERE INFERRED)
CONTOUR INTERVAL = 0.5 FEET

MW8S ■ MONITORING WELL LOCATION AND NUMBER

RW6 ▲ RECOVERY WELL LOCATION AND NUMBER

— GROUNDWATER FLOW DIRECTION

MW5S

MW19S

MW7S ▲ RW4

MW48

MW1D

RW5

MW8S
MW8D

TREATMENT BUILDING

MW17S

AST AREA

MW15S

MW16S ▲ RW2

MW14S ▲ RW1

MW18S

RW3
MW9S

BLUE RIVER

SURFACE WATER FLOW

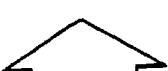
MW10S
RW6
SOUTHEAST AREA

MW3S
RW7

MWB3AD (809.50)
MW83AS (808.57)
MW2S (808.70)
RW10
MW11S (808.08)
MW83DS (808.01)
MW83DD
LINE OF CUT OFF WALL (TYP)

SLURRY WALL

MW13D MW13S (808.38)



north

0 60 120
SCALE IN FEET

GROUNDWATER CONTOURS - JANUARY 2001
WAYNE RECLAMATION AND RECYCLING
COLUMBIA CITY, INDIANA

Drawing Number
70210D13 C9
MONTGOMERY WATSON

Drawn by	_____
Date	_____
Approved by	_____
Reference	_____
Comments	_____
Approved	_____
Date	_____
Comments	_____
Approved	_____
Date	_____
Comments	_____

FIGURE 4-1

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN, DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATION FOR MW83AD SHOWN TO INDICATE VERTICAL GRADIENT.

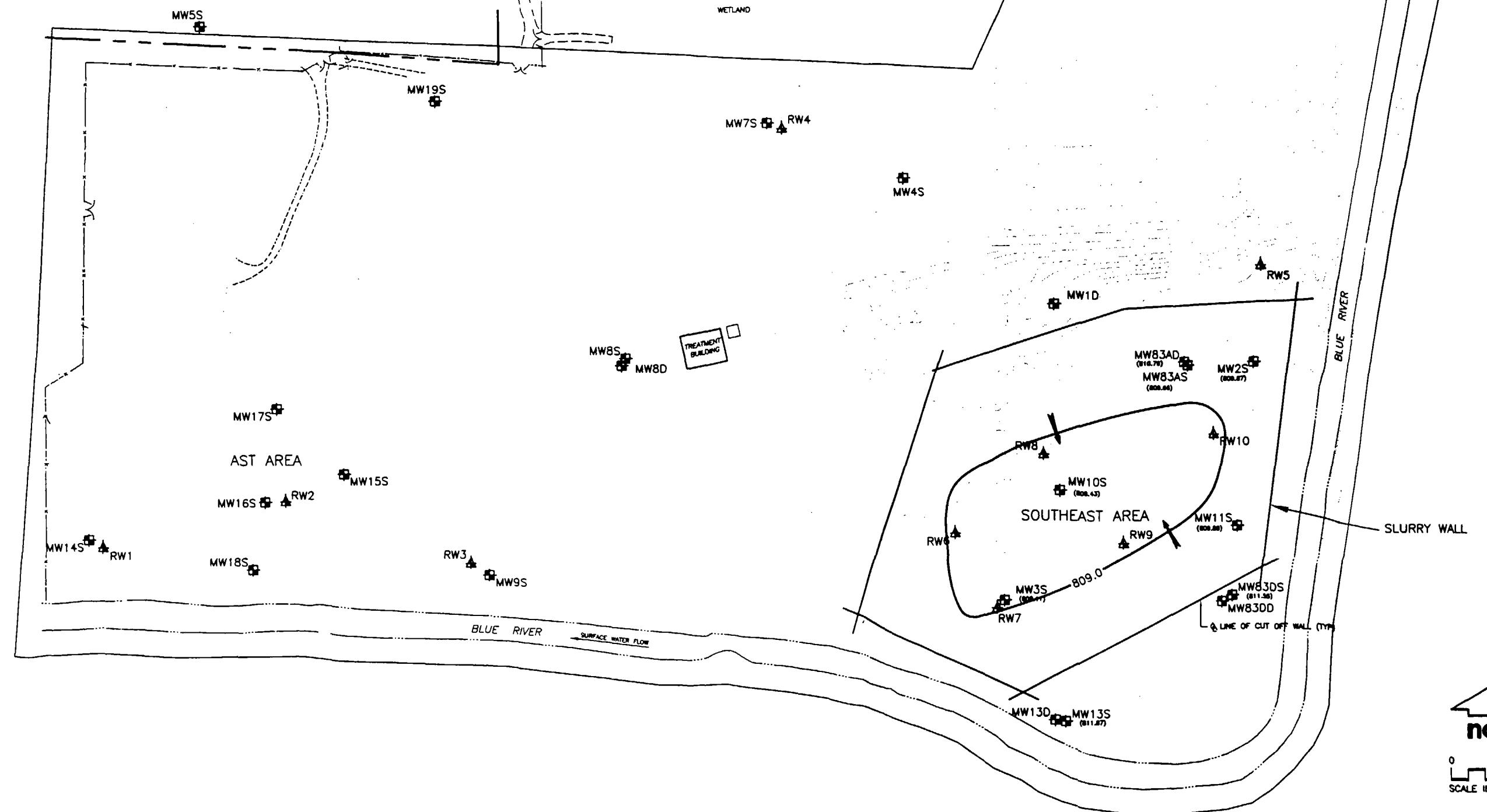
LEGEND

809.00 — GROUNDWATER CONTOUR (IN FEET)
REFERENCED TO MEAN SEA LEVEL
(DASHED WHERE INFERRED)
CONTOUR INTERVAL = 0.5 FEET

MW8S MONITORING WELL LOCATION AND NUMBER

RW6 RECOVERY WELL LOCATION AND NUMBER

→ GROUNDWATER FLOW DIRECTION



GROUNDWATER CONTOURS - FEBRUARY 2001
WAYNE RECLAMATION AND RECYCLING
COLUMBIA CITY, INDIANA

Printed	
Sheet Number	
Drawing Number	70210D13 C9
MONTGOMERY WATSON	

FIGURE 4-2

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24337, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY ATRIES, LEWIS, MORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATION FOR MW83AD SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND

809.00 GROUNDWATER CONTOUR (IN FEET)
REFERENCED TO MEAN SEA LEVEL
(DASHED WHERE INFERRED)
CONTOUR INTERVAL = 0.5 FEET

MW8S MONITORING WELL LOCATION
AND NUMBER

RW6 RECOVERY WELL LOCATION
AND NUMBER

→ GROUNDWATER FLOW DIRECTION

MW5S

MW19S

MW7S RW4

MW4S

MW1D

RW5

MW17S

AST AREA

MW8S
MW8D TREATMENT
BUILDING

MW16S RW2

MW18S

RW3
MW9S

MW14S RW1

BLUE RIVER

SURFACE WATER FLOW

SOUTHEAST AREA

MW83AD
(809.50)
MW83AS
(809.54)

MW2S
(809.75)

RW6

RW8

MW10S
(809.38)

RW10

RW7

MW3S
(809.00)

RW9

MW11S
(809.38)

MW83DS
(809.38)

MW83DD
(809.38)

MW13D
MW13S
(811.33)

SLURRY WALL



0 60 120
SCALE IN FEET

FIGURE 4-3

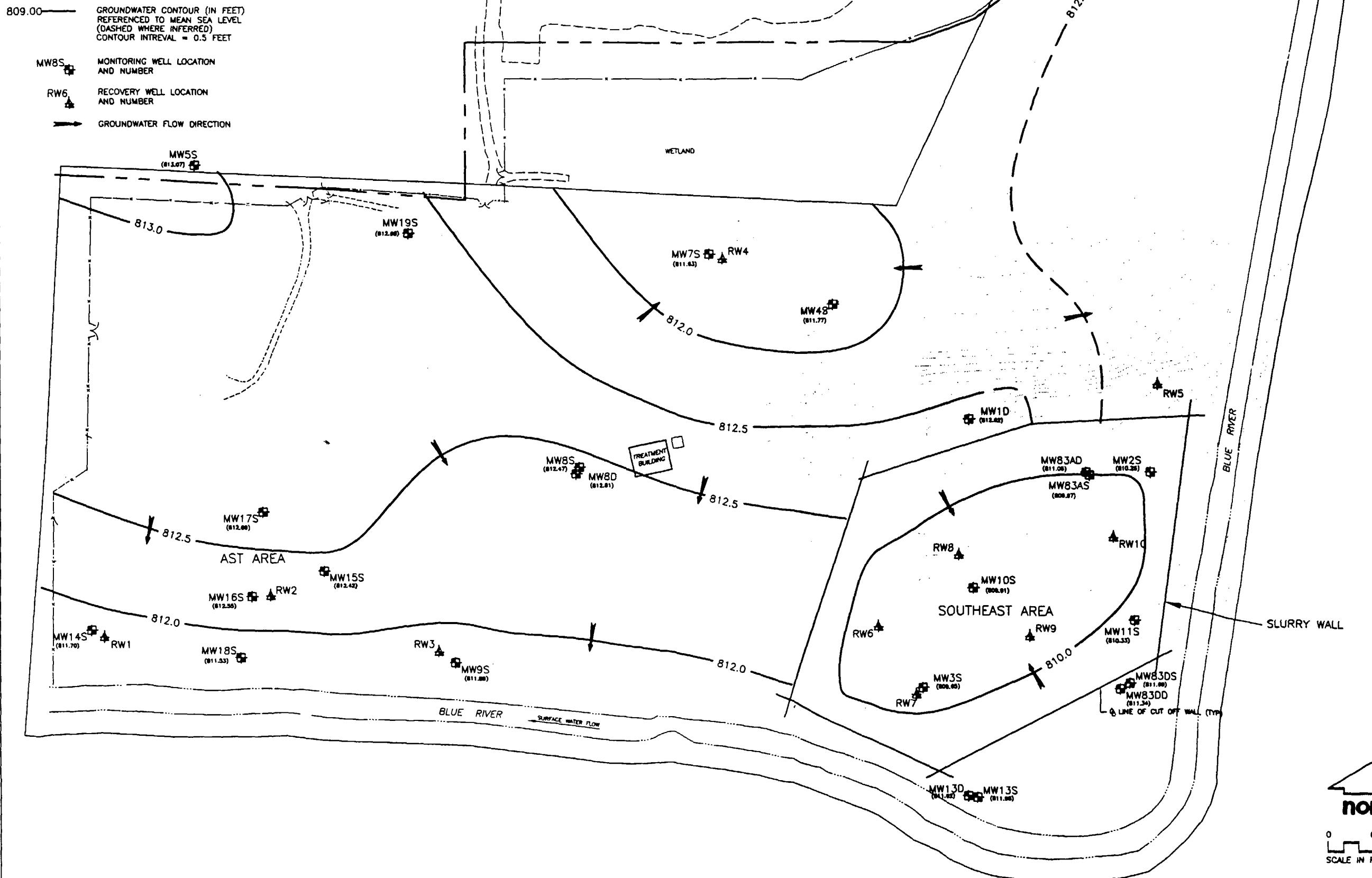
GROUNDWATER CONTOURS - MARCH 2001
WAYNE RECLAMATION AND RECYCLING
COLUMBIA CITY, INDIANA

Printed _____
Sheet Number _____
Drawing Number 70210013 C9
MONTGOMERY WATSON

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 03-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
 2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
 3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASC-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
 4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATION.
 5. WATER ELEVATION FOR MW6340 SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND



GROUNDWATER CONTOURS - APRIL 2001

WAYNE RECLAMATION AND RECYCLING
COLUMBIA CITY, INDIANA



60 120

SCALE IN FEET

FIGURE 4-

**MONTGOMERY
WATSON**

**MONTGOMERY
WATSON**

WATSON

WATSON

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— 1 —

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASC-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATION FOR MW83AD SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND

809.00 — GROUNDWATER CONTOUR (IN FEET)
REFERENCED TO MEAN SEA LEVEL
(DASHED WHERE INFERRED)
CONTOUR INTERVAL = 0.5 FEET

MW8S ■ MONITORING WELL LOCATION AND NUMBER

RW6 ▲ RECOVERY WELL LOCATION AND NUMBER

→ GROUNDWATER FLOW DIRECTION

MW5S ■

MW19S ■

WETLAND

MW7S ■ RW4 ▲

MW48 ■ MW4S ■

MW16S ■ OCTOBER 2000 RESULTS
COMPOUND CONCENTRATION
1,1-DCA 54 µg/L
1,2-DCE 155.5 µg/L
1,1,1-TCA 15 µg/L
VC 8.7 µg/L

MW15S ■ OCTOBER 2000 RESULTS
COMPOUND CONCENTRATION
TCE 11 µg/L

MW10S ■ APRIL 2001 RESULTS
COMPOUND CONCENTRATION
1,2-DCE 2,030 µg/L

MW9S ■

MW3S ■

MW13S ■ OCTOBER 2000 RESULTS
COMPOUND CONCENTRATION
1,2-DCE 878 µg/L
VC 67 µg/L

MW3DS ■ MW83DD ■

MW13D ■ MW13S ■

MW10D ■ MW10S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW10S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

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RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

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RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

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RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

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MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

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MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

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MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

MW8 ■ RW10 ▲

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RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

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RW9 ▲

MW11S ■

MW83AD ■ MW83AS ■

MW2S ■ MW11S ■

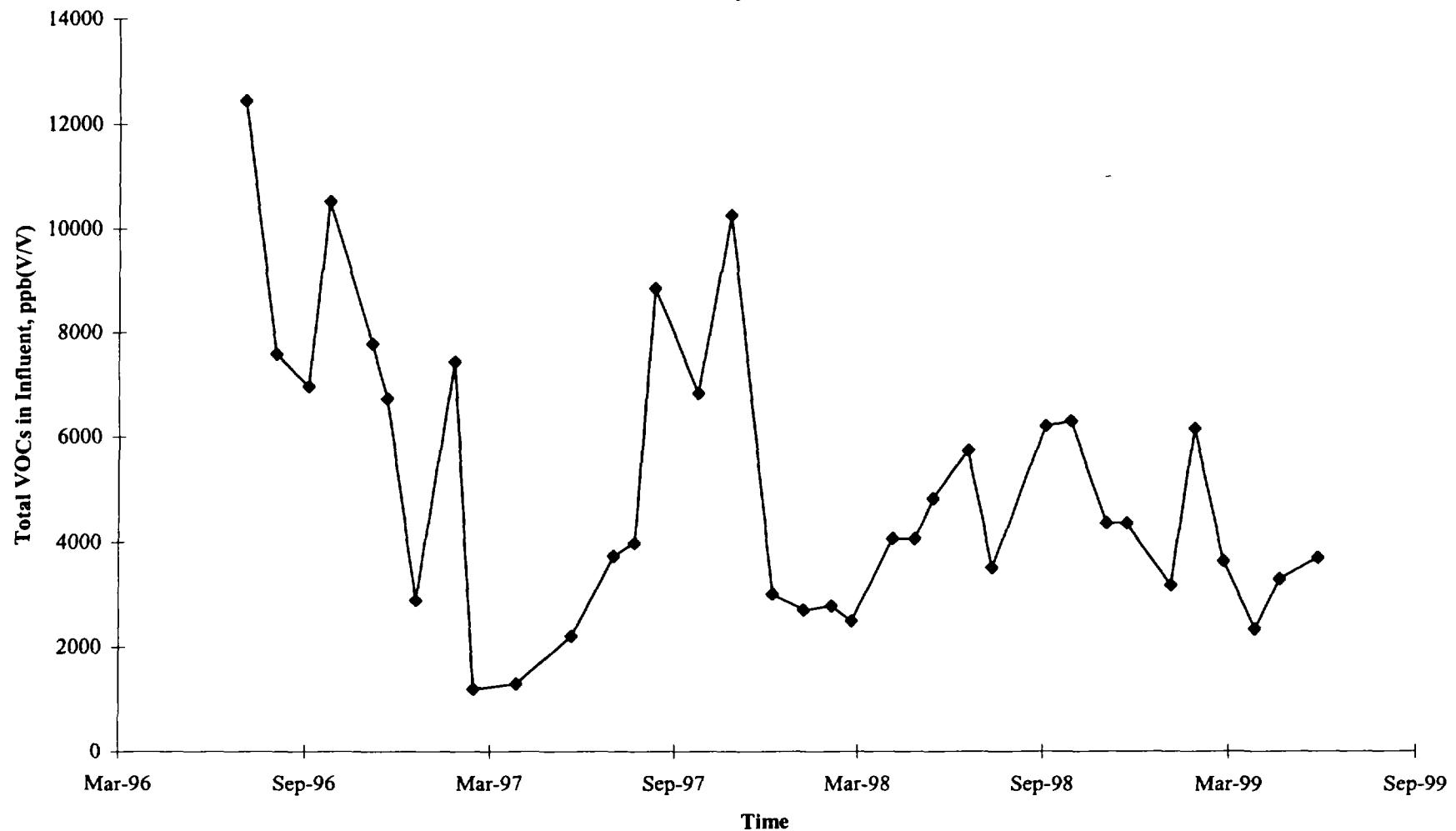
MW8 ■ RW10 ▲

RW6 ■ RW7 ▲

RW9 ▲

<p

Figure 5
Historic Summary of Air Treatment System Influent Data
Wayne Reclamation and Recycling
Columbia City, Indiana



Note: Air Treatment System discontinued June 24, 1999.
Last sample collected June 24, 1999.

J:\3868\0120\prgrpt12\tables\table12.xls (Figure 5)
8/28/01

Figure 6
Summary of Air Treatment System Effluent Data
Wayne Reclamation and Recycling
Columbia City, Indiana

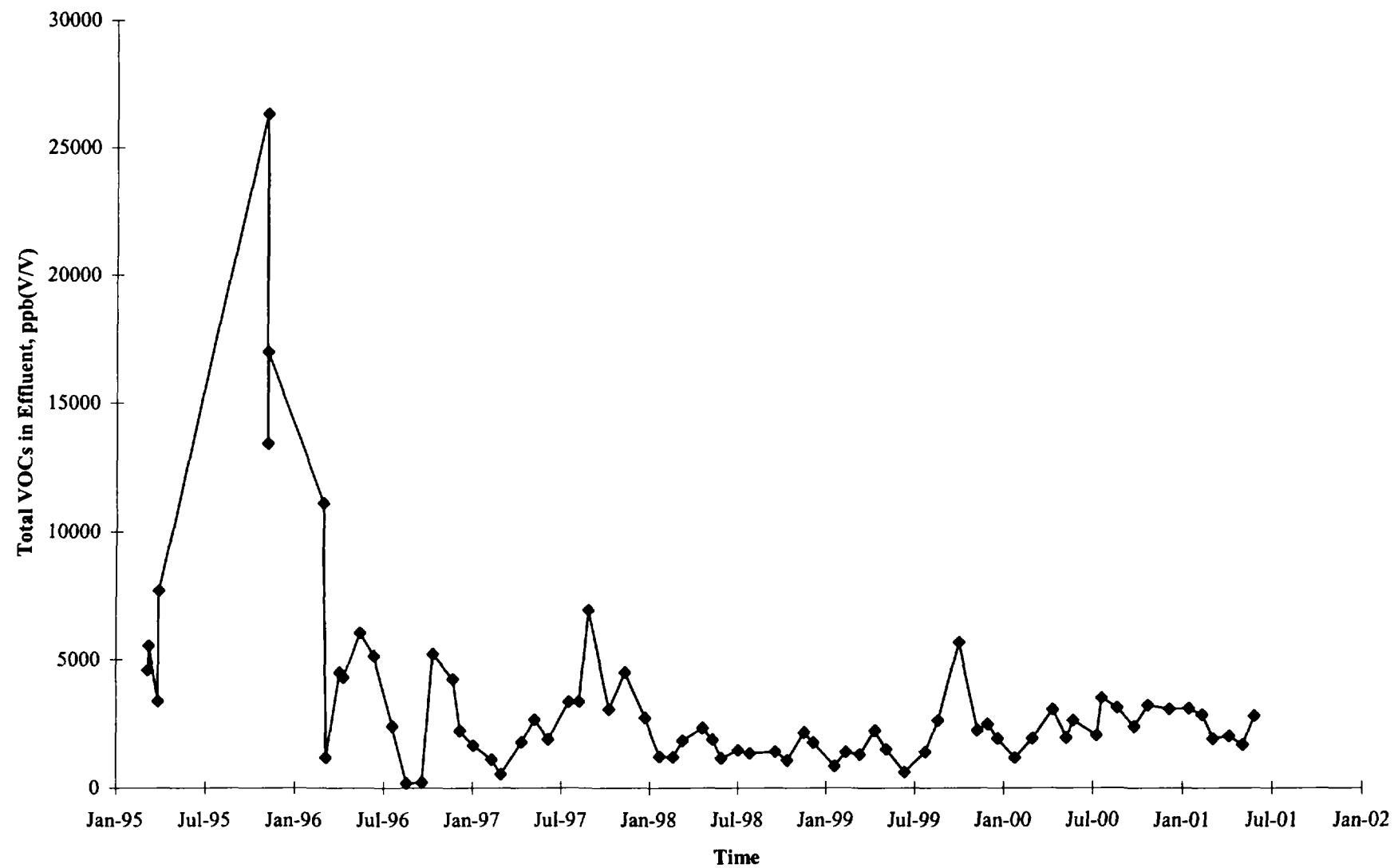


Figure 7
Summary of Groundwater Treatment System Influent Data
Wayne Reclamation and Recycling
Columbia City, Indiana

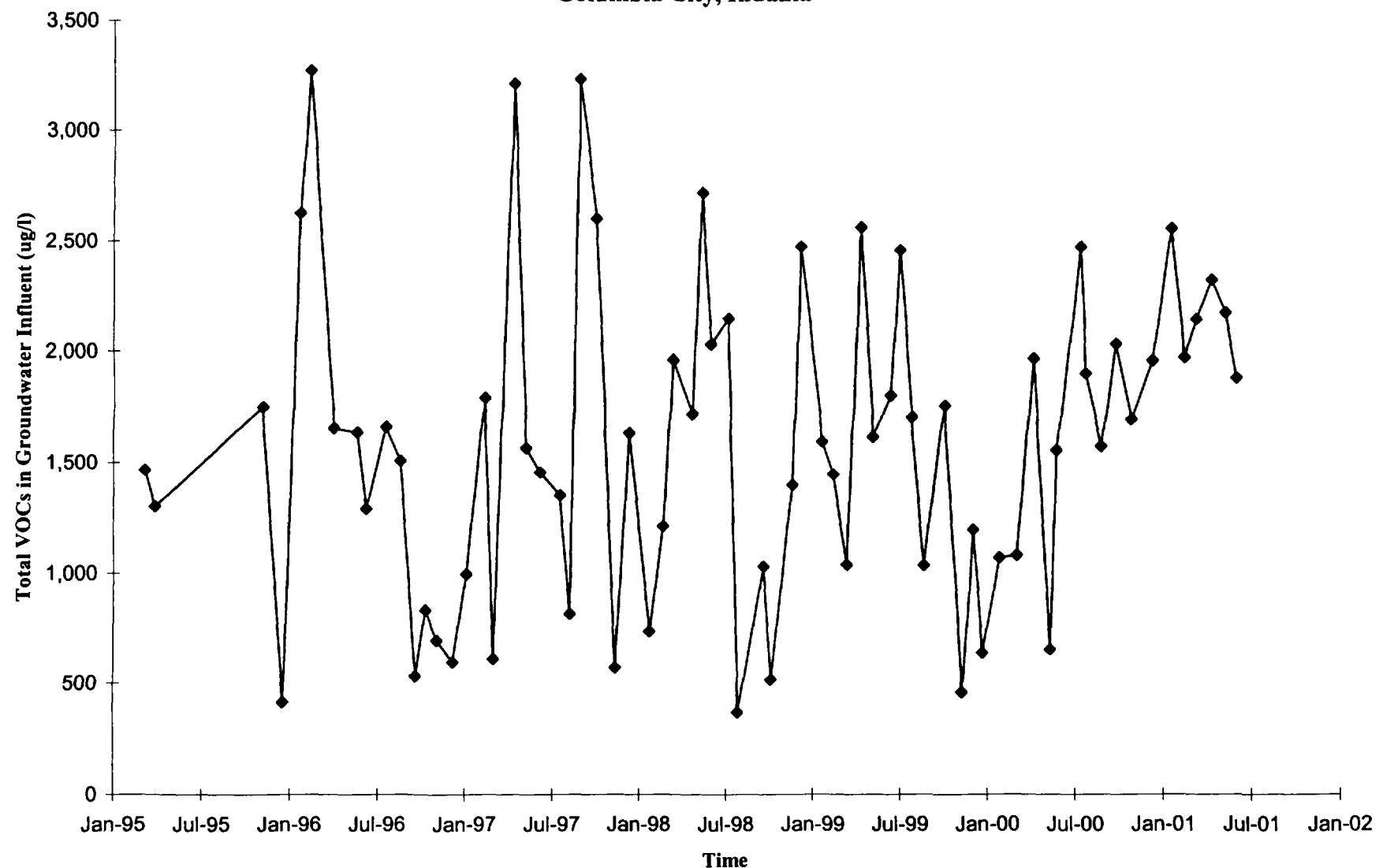


Figure 8
Summary of Site VOC Removal Rates
Soil and Groundwater Remediation Systems
Wayne Reclamation and Recycling
Columbia City, Indiana

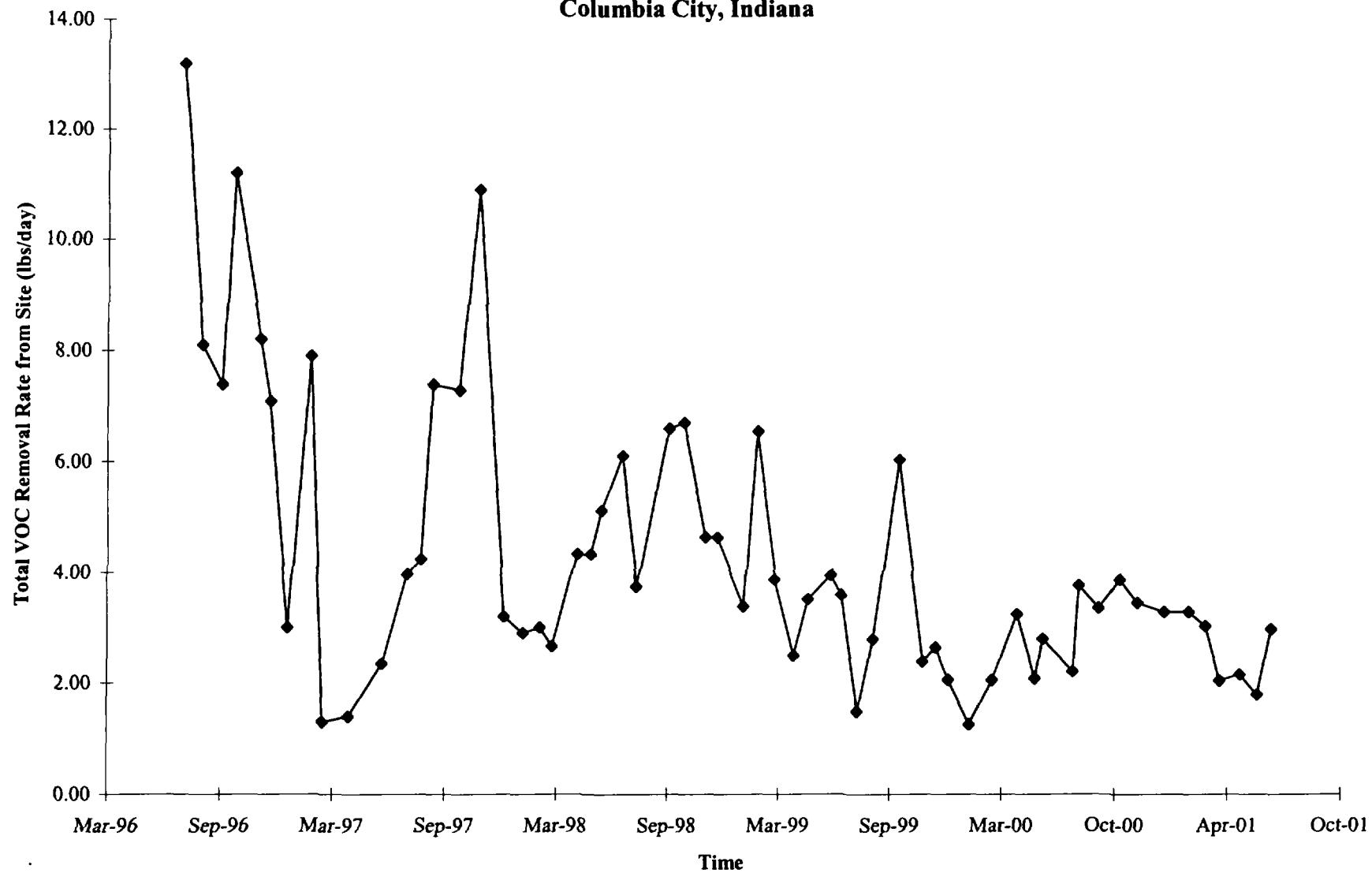


Figure 9
Cumulative VOCs Removed From Site
Soil and Groundwater Remediation Systems
Wayne Reclamation and Recycling
Columbia City, Indiana

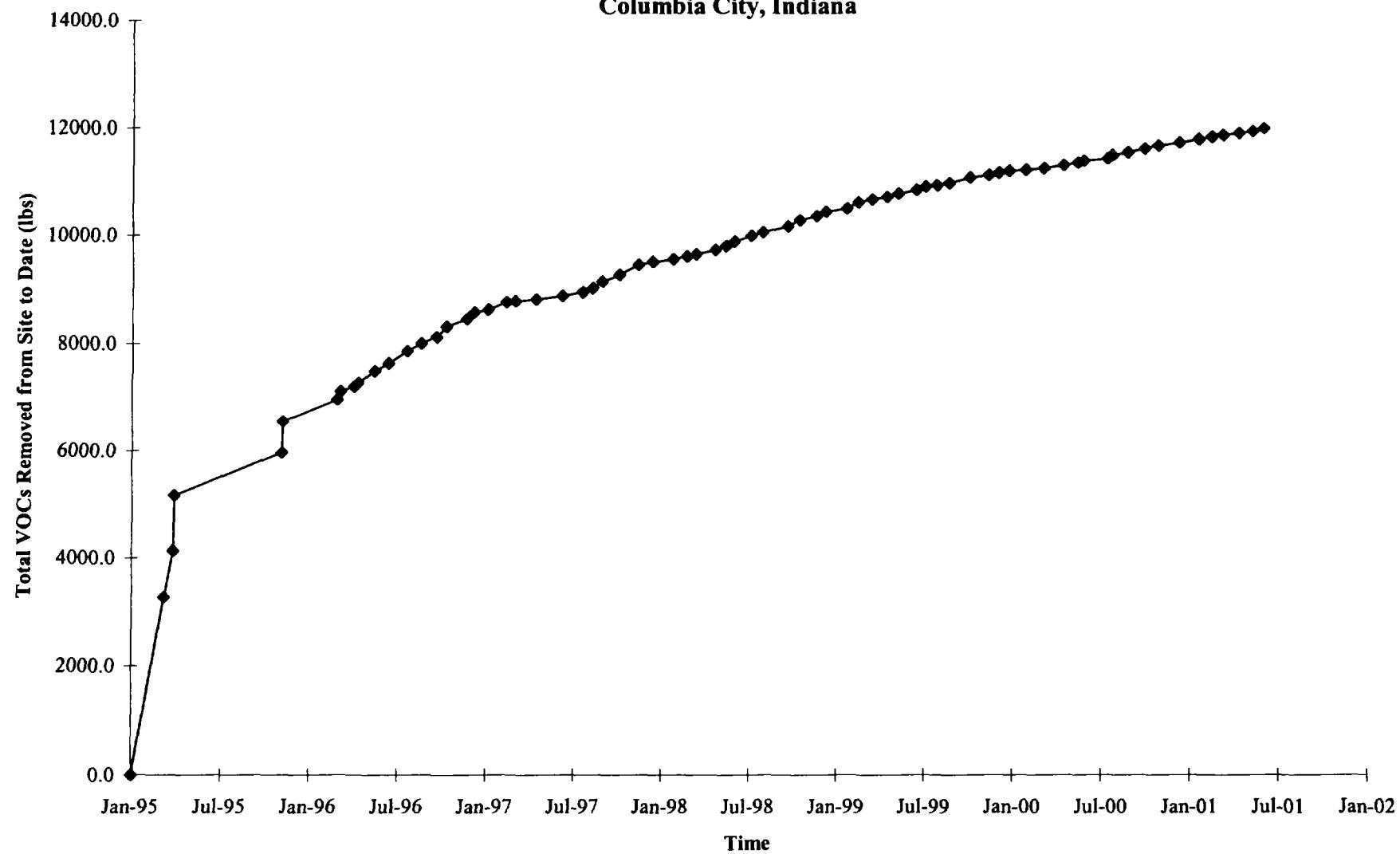


Figure 10
Effect of Air Sparge on SVE VOC Concentrations
Wayne Reclamation and Recycling
Columbia City, Indiana

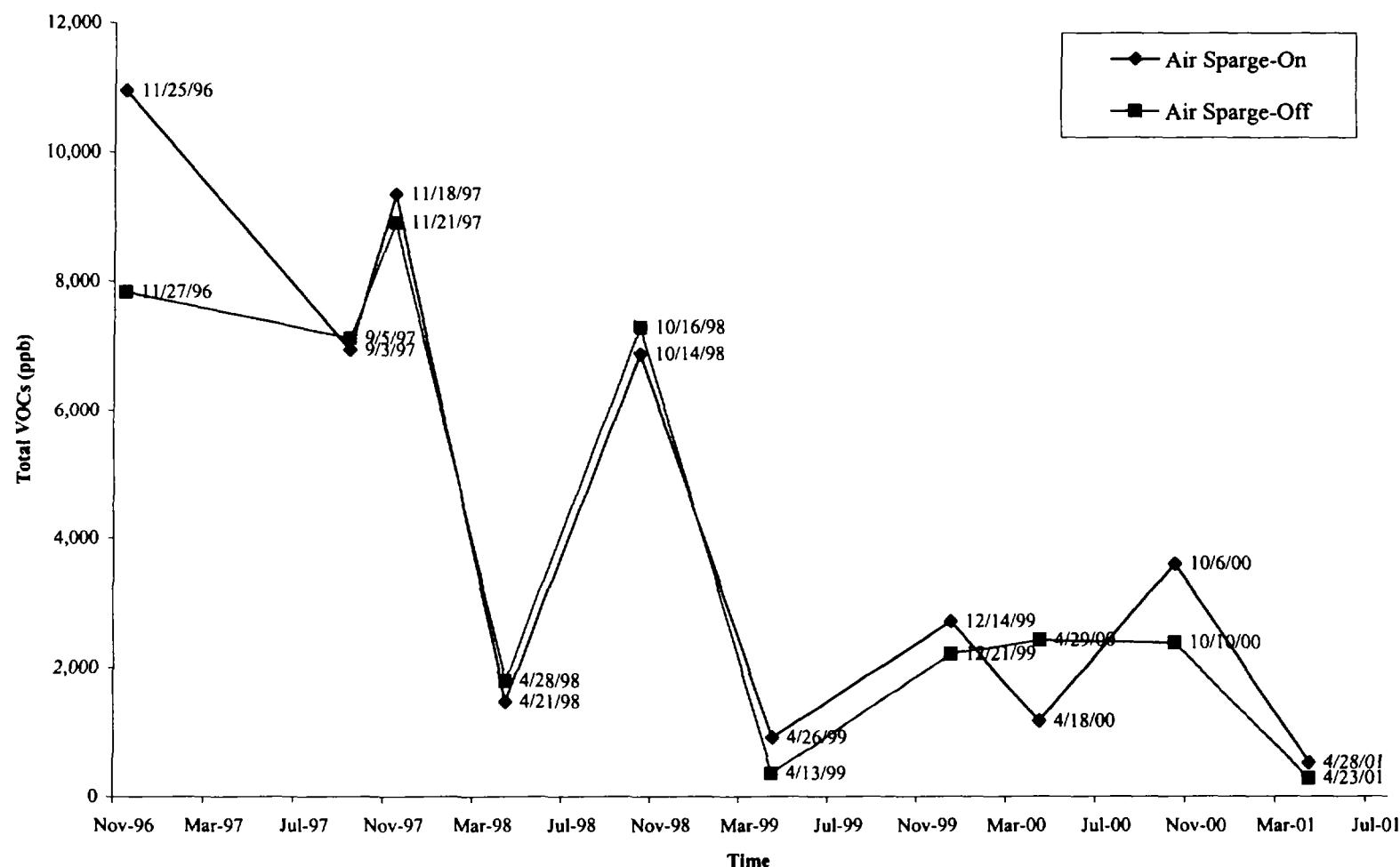
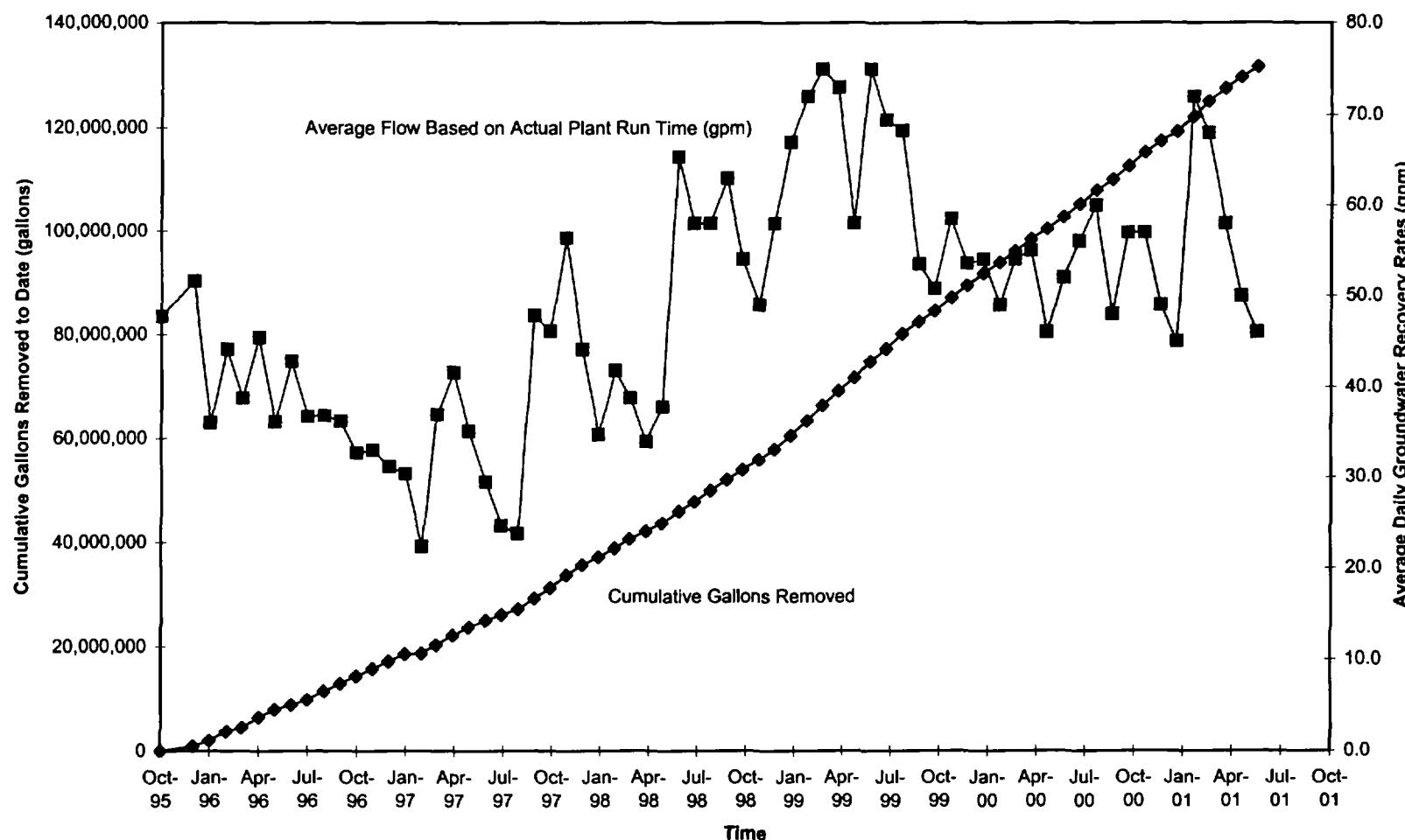


Figure 11
Cumulative and Sustained Groundwater Recovery
Wayne Reclamation and Recycling
Columbia City, Indiana



APPENDIX A

SUMMARY OF AIR DISPERSION MODELING AND CUMULATIVE CANCER RISK CALCULATIONS

APPENDIX A

Summary of Air Dispersion Modeling and Cumulative Cancer Risk Calculations Wayne Reclamation and Recycling Columbia City, Indiana

The following summarizes the air modeling conducted by Montgomery Watson for the Wayne Reclamation and Recycling facility in Columbia City, Indiana to assess the maximum annual average ground-level concentration that could occur at any point outside the perimeter of the Wayne Reclamation site. A description of the model, modeling procedures, and results is provided below.

AIR DISPERSION MODELING PROCEDURES

The modeling was performed by utilizing the United States Environmental Protection Agency (USEPA) model Industrial Source Complex Long Term (ISC-LT) to evaluate the ambient air impact of emissions from the site. Dispersion modeling was conducted on both the treatment system influent and effluent in order to compare the risks associated with both treated and untreated air.

Meteorological Data

Meteorological data from 1985 was inputted into the model for the Columbia City, Indiana region. Model output is highly sensitive to such data, as changes in atmospheric conditions will directly affect the ability of a discharged pollutant to disperse in the surrounding air. Meteorological data such as wind speed, wind direction, urban and rural mixing heights, Pasquill Stability Classifications (rated A to G, G being the most stable), and ambient air temperature were converted into a binary data package. The package was then loaded into the ISC-LT model. The model then evaluated these conditions with the remaining model input parameters to identify which combinations of these conditions would result in maximum ground level pollutant concentrations.

Emissions Source Data

The following data represents the emissions parameters at the Wayne Reclamation site which were inputted into the model:

Stack Height	9.1 meters
Stack Diameter	0.4064 meters
Stack Base Elevation	6.1 meters
Exhaust Temperature	73° C
Gas Exit Velocity	13.08 m/s
Volumetric Flow Rate	1.7 cubic meters/sec
Influent/Effluent Conc.	Sampling events (see Table 14)
Terrain	Flat
Dispersion Coefficients	Rural
Final Plume Rise	On

Stack-tip Downwash	On
Receptor Height	0 meters

Modeling Procedure

A grid was established to describe the relationship of the emission source with its surroundings, including the location of the site boundaries and any potential receptors. A cartesian grid was established around the facility to determine ground-level concentration locations.

HUMAN HEALTH RISK ASSESSMENT

The maximum concentrations determined by the air modeling study were multiplied by unit risk factors to obtain the excess carcinogenic risk posed by the emissions through the inhalation route. The unit risk factors used in this study were developed from toxicity values included in U.S.EPA's Integrated Risk Information System (IRIS), U.S.EPA's "Health Assessment Summary Tables" (HEAST, Annual FY-1995), and information provided by the U.S.EPA Environmental Criteria Assessment Office (ECAO). The unit risk factors assume a chronic exposure to the carcinogenic chemicals for 24 hours a day, 365 days a year for 70 years. The unit risk factors for the constituents of concern are:

Vinyl Chloride -	7.80E-05
1,1-Dichloroethane -	1.63E-08
Trichloroethene -	2.00E-06
Tetrachloroethene -	5.90E-06

The excess cancer risk to the maximally exposed individual can be calculated by multiplying the unit risk factor by the ambient concentration of the chemical in question. In a residential zone, the maximally exposed individual is assumed to be continuously exposed to the chemical for 70 years.

The maximum individual excess cancer risk (MICR) to the maximally exposed individual due to air toxic emissions from the Wayne Reclamation site was calculated by multiplying the appropriate risk factor by the maximum annual ground level concentration (GLC) at the maximally exposed individual:

$$\text{MICR} = \text{URF} * \text{GLC}$$

A summary of these calculations using concentrations generated from the model output is provided in Table 15. An example model input/output is attached.

J STARTING
 J TITLEONE Fort Wayne Reclamation Site, 30 ft stack
 CO MODELOPT DEFAULT CONC RURAL
 J AVERTIME ANNUAL
 J POLLUTID OTHER
 CO DCAYCOEF .000000
 CO RUNORNOT RUN
 J ERRORFIL ERRORS.OUT
 J FINISHED

CO STARTING
 * Source Location Cards:
 ..* SRCID SRCTYP XS YS ZS
 SO LOCATION 1 POINT 0.000 0.000 0.000

* Source Parameter Cards:
 ** POINT: SRCID QS HS TS VS DS
 ** VOLUME: SRCID QS HS SYINIT SZINIT
 * AREA: SRCID QS HS XINIT

SO SRCPARAM 1	0.007 9.1440	293.15	7.5	1.0000
CO EMISUNIT	.100000E+07	(GRAMS/SEC)	(MICROGRAMS/CUBIC-METER)	
CO SRCGROUP ALL				

J FINISHED

E STARTING
 E DISCCART -241 116
 RE DISCCART -239 -85
 RE DISCCART -239 -45
 E DISCCART -239 -5
 E DISCCART -239 35
 RE DISCCART -239 75
 RE DISCCART -204 -86
 E DISCCART -198 114
 RE DISCCART -169 -86
 RE DISCCART -155 112
 RE DISCCART -134 -86
 E DISCCART -112 110
 RE DISCCART -89 -91
 RE DISCCART -70 181
 RE DISCCART -69 144
 RE DISCCART -68 107
 RE DISCCART -45 -95
 RE DISCCART -27 181
 RE DISCCART -1 -99
 RE DISCCART 16 181
 RE DISCCART 43 -103
 RE DISCCART 59 181
 RE DISCCART 70 -111
 RE DISCCART 97 -119
 RE DISCCART 102 183
 RE DISCCART 102 231
 RE DISCCART 123 -133
 RE DISCCART 142 231
 RE DISCCART 149 -146
 RE DISCCART 182 231
 RE DISCCART 184 -145
 RE DISCCART 202 -137
 RE DISCCART 209 -116
 RE DISCCART 215 -69
 RE DISCCART 221 -31
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ME ANEMHIGHT 10.00 METERS
ME SURFDATA 14827 1985 SURFNAME
ME UAIRDATA 13840 1985 UAIRNAME
ME STARDATA ANNUAL
ME AVESPEED 1.54 3.09 3.95 5.14 8.23 10.80
ME AVETEMPS ANNUAL 280 280 280 280 280 280
ME AVEMIXHT ANNUAL A 440 440 440 440 440 440
ME AVEMIXHT ANNUAL B 440 440 440 440 440 440
ME AVEMIXHT ANNUAL C 440 440 440 440 440 440
ME AVEMIXHT ANNUAL D 440 440 440 440 440 440
ME AVEMIXHT ANNUAL E 440 440 440 440 440 440
ME AVEMIXHT ANNUAL F 440 440 440 440 440 440
ME FINISHED

OU STARTING
OU RECTABLE SRCGRP
OU FINISHED

*** SETUP Finishes Successfully ***

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** MODEL SETUP OPTIONS SUMMARY

*Model Is Setup For Calculation of Average CONCcentration Values.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

*Model Uses NO plume DEPLETION.

**Model Uses RURAL Dispersion.

*Model Uses Regulatory DEFAULT Options:

1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Default Wind Profile Exponents.
5. Default Vertical Potential Temperature Gradients.
6. "Upper Bound" Values For Supersquat Buildings.
7. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 STAR Average(s) for the Following Months: 0 0 0 0 C
Seasons/Quarters: 0 0 0 0
and Annual: 1

**Data File Includes 1 STAR Summaries for the Following Months: 0 0 0 0 C
Seasons/Quarters: 0 0 0 0
and Annual: 1

**This Run Includes: 1 Source(s); 1 Source Group(s); and 386 Recepto

**The Model Assumes A Pollutant Type of: OTHER

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:

Model Outputs Tables of Long Term Values by Receptor (RECTABLE Keyword)

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = .0000 ;
Emission Units = (GRAMS/SEC)
Output Units = (MICROGRAMS/CUBIC-METER)

**Input Runstream File: INPUT.FIL

; **Output Pr

**Error Message File: ERRORS.OUT

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. (USER UNITS) CATS.	EMISSION RATE (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)
1	0	.70000E-02	.0	.0	.0	9.14	293.15

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS

GROUP ID

SOURCE IDs

ALL 1

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** DISCRETE CARTESIAN RECEPTORS **
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

{	-241.0,	116.0,	.0,	.0);	(	-239.0,	-85.
{	-239.0,	-45.0,	.0,	.0);	(	-239.0,	-5.
{	-239.0,	35.0,	.0,	.0);	(	-239.0,	75.
{	-204.0,	-86.0,	.0,	.0);	(	-198.0,	114.
{	-169.0,	-86.0,	.0,	.0);	(	-155.0,	112.
{	-134.0,	-86.0,	.0,	.0);	(	-112.0,	110.
{	-89.0,	-91.0,	.0,	.0);	(	-70.0,	181.
{	-69.0,	144.0,	.0,	.0);	(	-68.0,	107.
{	-45.0,	-95.0,	.0,	.0);	(	-27.0,	181.
{	-1.0,	-99.0,	.0,	.0);	(	16.0,	181.
{	43.0,	-103.0,	.0,	.0);	(	59.0,	181.
{	70.0,	-111.0,	.0,	.0);	(	97.0,	-119.
{	102.0,	183.0,	.0,	.0);	(	102.0,	231.
{	123.0,	-133.0,	.0,	.0);	(	142.0,	231.
{	149.0,	-146.0,	.0,	.0);	(	182.0,	231.
{	184.0,	-145.0,	.0,	.0);	(	202.0,	-137.
{	209.0,	-116.0,	.0,	.0);	(	215.0,	-69.
{	221.0,	-31.0,	.0,	.0);	(	222.0,	231.
{	227.0,	7.0,	.0,	.0);	(	223.0,	45.
{	242.0,	91.0,	.0,	.0);	(	251.0,	136.
{	260.0,	181.0,	.0,	.0);	(	262.0,	207.
{	264.0,	232.0,	.0,	.0);	(	-900.0,	-800.
{	-900.0,	-700.0,	.0,	.0);	(	-900.0,	-600.
{	-900.0,	-500.0,	.0,	.0);	(	-900.0,	-400.
{	-900.0,	-300.0,	.0,	.0);	(	-900.0,	-200.
{	-900.0,	-100.0,	.0,	.0);	(	-900.0,	.
{	-900.0,	100.0,	.0,	.0);	(	-900.0,	200.
{	-900.0,	300.0,	.0,	.0);	(	-900.0,	400.
{	-900.0,	500.0,	.0,	.0);	(	-900.0,	600.
{	-900.0,	700.0,	.0,	.0);	(	-900.0,	800.
{	-900.0,	900.0,	.0,	.0);	(	-800.0,	-800.
{	-800.0,	-700.0,	.0,	.0);	(	-800.0,	-600.
{	-800.0,	-500.0,	.0,	.0);	(	-800.0,	-400.
{	-800.0,	-300.0,	.0,	.0);	(	-800.0,	-200.
{	-800.0,	-100.0,	.0,	.0);	(	-800.0,	.
{	-800.0,	100.0,	.0,	.0);	(	-800.0,	200.
{	-800.0,	300.0,	.0,	.0);	(	-800.0,	400.
{	-800.0,	500.0,	.0,	.0);	(	-800.0,	600.
{	-800.0,	700.0,	.0,	.0);	(	-800.0,	800.
{	-800.0,	900.0,	.0,	.0);	(	-700.0,	-800.
{	-700.0,	-700.0,	.0,	.0);	(	-700.0,	-600.
{	-700.0,	-500.0,	.0,	.0);	(	-700.0,	-400.
{	-700.0,	-300.0,	.0,	.0);	(	-700.0,	-200.
{	-700.0,	-100.0,	.0,	.0);	(	-700.0,	.
{	-700.0,	100.0,	.0,	.0);	(	-700.0,	200.

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** DISCRETE CARTESIAN RECEPTORS **
 (X-COORD, Y-COORD, ZELEV, ZFLAG)
 (METERS)

(	-700.0,	300.0,	.0,	.0);	(	-700.0,	400.
)	-700.0,	500.0,	.0,	.0);	)	-700.0,	600.
(	-700.0,	700.0,	.0,	.0);	(	-700.0,	800.
)	-700.0,	900.0,	.0,	.0);	(	-600.0,	-800.
(	-600.0,	-700.0,	.0,	.0);	)	-600.0,	-600.
)	-600.0,	-500.0,	.0,	.0);	(	-600.0,	-400.
(	-600.0,	-300.0,	.0,	.0);	)	-600.0,	-200.
)	-600.0,	-100.0,	.0,	.0);	(	-600.0,	.
(	-600.0,	100.0,	.0,	.0);	)	-600.0,	200.
)	-600.0,	300.0,	.0,	.0);	(	-600.0,	400.
(	-600.0,	500.0,	.0,	.0);	)	-600.0,	400.
)	-600.0,	300.0,	.0,	.0);	(	-600.0,	500.
(	-600.0,	600.0,	.0,	.0);	)	-600.0,	700.
)	-600.0,	800.0,	.0,	.0);	(	-600.0,	900.
(	-500.0,	-800.0,	.0,	.0);	)	-500.0,	-700.
)	-500.0,	-600.0,	.0,	.0);	(	-500.0,	-500.
(	-500.0,	-400.0,	.0,	.0);	)	-500.0,	-300.
)	-500.0,	-200.0,	.0,	.0);	(	-500.0,	-100.
(	-500.0,	.0,	.0,	.0);	)	-500.0,	100.
)	-500.0,	200.0,	.0,	.0);	(	-500.0,	300.
(	-500.0,	400.0,	.0,	.0);	)	-500.0,	300.
)	-500.0,	200.0,	.0,	.0);	(	-500.0,	100.
(	-500.0,	200.0,	.0,	.0);	)	-500.0,	300.
)	-500.0,	400.0,	.0,	.0);	(	-500.0,	500.
(	-500.0,	600.0,	.0,	.0);	)	-500.0,	700.
)	-500.0,	800.0,	.0,	.0);	(	-500.0,	900.
(	-400.0,	-800.0,	.0,	.0);	)	-400.0,	-700.
)	-400.0,	-600.0,	.0,	.0);	(	-400.0,	-500.
(	-400.0,	-400.0,	.0,	.0);	)	-400.0,	-300.
)	-400.0,	-200.0,	.0,	.0);	(	-400.0,	-100.
(	-400.0,	.0,	.0,	.0);	)	-400.0,	100.
)	-400.0,	200.0,	.0,	.0);	(	-400.0,	300.
(	-400.0,	400.0,	.0,	.0);	)	-400.0,	500.
)	-400.0,	600.0,	.0,	.0);	(	-400.0,	700.
(	-400.0,	800.0,	.0,	.0);	)	-400.0,	900.
)	-300.0,	-800.0,	.0,	.0);	(	-300.0,	-700.
(	-300.0,	-600.0,	.0,	.0);	)	-300.0,	-500.
)	-300.0,	-400.0,	.0,	.0);	(	-300.0,	-300.
(	-300.0,	-200.0,	.0,	.0);	)	-300.0,	-100.
(	-300.0,	.0,	.0,	.0);	)	-300.0,	100.
)	-300.0,	200.0,	.0,	.0);	(	-300.0,	300.
(	-300.0,	400.0,	.0,	.0);	)	-300.0,	500.
)	-300.0,	600.0,	.0,	.0);	(	-300.0,	700.
(	-300.0,	800.0,	.0,	.0);	)	-300.0,	900.
)	-200.0,	-800.0,	.0,	.0);	(	-200.0,	-700.

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC

RURAL

FLAT

DEFAULT

*** DISCRETE CARTESIAN RECEPTORS **
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

```

(
-200.0,    -600.0,      .0,      .0);      (
-200.0,    -400.0,      .0,      .0);      (
-200.0,    -200.0,      .0,      .0);      (
-200.0,      .0,        .0,      .0);      (
-200.0,    200.0,       .0,      .0);      (
-200.0,    400.0,       .0,      .0);      (
-200.0,    600.0,       .0,      .0);      (
-200.0,    800.0,       .0,      .0);      (
-100.0,   -800.0,       .0,      .0);      (
-100.0,   -600.0,       .0,      .0);      (
-100.0,   -400.0,       .0,      .0);      (
-100.0,   -200.0,       .0,      .0);      (
-100.0,      .0,        .0,      .0);      (
-100.0,    200.0,       .0,      .0);      (
-100.0,    400.0,       .0,      .0);      (
-100.0,    600.0,       .0,      .0);      (
-100.0,    800.0,       .0,      .0);      (
     .0,   -800.0,       .0,      .0);      (
     .0,   -600.0,       .0,      .0);      (
     .0,   -400.0,       .0,      .0);      (
     .0,   -200.0,       .0,      .0);      (
     .0,   -200.0,       .0,      .0);      (
     .0,      .0,        .0,      .0);      (
     .0,    200.0,       .0,      .0);      (
     .0,    400.0,       .0,      .0);      (
     .0,    600.0,       .0,      .0);      (
     .0,    800.0,       .0,      .0);      (
100.0,   -800.0,       .0,      .0);      (
100.0,   -600.0,       .0,      .0);      (
100.0,   -400.0,       .0,      .0);      (
100.0,   -200.0,       .0,      .0);      (
100.0,      .0,        .0,      .0);      (
100.0,    200.0,       .0,      .0);      (
100.0,    400.0,       .0,      .0);      (
100.0,    600.0,       .0,      .0);      (
100.0,    800.0,       .0,      .0);      (
200.0,   -800.0,       .0,      .0);      (
200.0,   -600.0,       .0,      .0);      (
200.0,   -400.0,       .0,      .0);      (
200.0,   -200.0,       .0,      .0);      (
200.0,      .0,        .0,      .0);      (
200.0,    200.0,       .0,      .0);      (
200.0,    400.0,       .0,      .0);      (
200.0,    600.0,       .0,      .0);      (
200.0,    800.0,       .0,      .0);
)

```

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL ELAT DEFAULT

*** DISCRETE CARTESIAN RECEPTORS **
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

{ 300.0,	-800.0,	.0,	.0);	{ 300.0,	-700.
{ 300.0,	-600.0,	.0,	.0);	{ 300.0,	-500.
{ 300.0,	-400.0,	.0,	.0);	{ 300.0,	-300.
{ 300.0,	-200.0,	.0,	.0);	{ 300.0,	-100.
{ 300.0,	.0,	.0,	.0);	{ 300.0,	100.
{ 300.0,	200.0,	.0,	.0);	{ 300.0,	300.
{ 300.0,	400.0,	.0,	.0);	{ 300.0,	500.
{ 300.0,	600.0,	.0,	.0);	{ 300.0,	700.
{ 300.0,	800.0,	.0,	.0);	{ 300.0,	900.
{ 400.0,	-800.0,	.0,	.0);	{ 400.0,	-700.
{ 400.0,	-600.0,	.0,	.0);	{ 400.0,	-500.
{ 400.0,	-400.0,	.0,	.0);	{ 400.0,	-300.
{ 400.0,	-200.0,	.0,	.0);	{ 400.0,	-100.
{ 400.0,	.0,	.0,	.0);	{ 400.0,	100.
{ 400.0,	200.0,	.0,	.0);	{ 400.0,	300.
{ 400.0,	400.0,	.0,	.0);	{ 400.0,	500.
{ 400.0,	600.0,	.0,	.0);	{ 400.0,	700.
{ 400.0,	800.0,	.0,	.0);	{ 400.0,	900.
{ 500.0,	-800.0,	.0,	.0);	{ 500.0,	-700.
{ 500.0,	-600.0,	.0,	.0);	{ 500.0,	-500.
{ 500.0,	-400.0,	.0,	.0);	{ 500.0,	-300.
{ 500.0,	-200.0,	.0,	.0);	{ 500.0,	-100.
{ 500.0,	.0,	.0,	.0);	{ 500.0,	100.
{ 500.0,	200.0,	.0,	.0);	{ 500.0,	300.
{ 500.0,	400.0,	.0,	.0);	{ 500.0,	500.
{ 500.0,	600.0,	.0,	.0);	{ 500.0,	700.
{ 500.0,	800.0,	.0,	.0);	{ 500.0,	900.
{ 600.0,	-800.0,	.0,	.0);	{ 600.0,	-700.
{ 600.0,	-600.0,	.0,	.0);	{ 600.0,	-500.
{ 600.0,	-400.0,	.0,	.0);	{ 600.0,	-300.
{ 600.0,	-200.0,	.0,	.0);	{ 600.0,	-100.
{ 600.0,	.0,	.0,	.0);	{ 600.0,	100.
{ 600.0,	200.0,	.0,	.0);	{ 600.0,	300.
{ 600.0,	400.0,	.0,	.0);	{ 600.0,	500.
{ 600.0,	600.0,	.0,	.0);	{ 600.0,	700.
{ 600.0,	800.0,	.0,	.0);	{ 600.0,	900.
{ 700.0,	-700.0,	.0,	.0);	{ 700.0,	-600.
{ 700.0,	-500.0,	.0,	.0);	{ 700.0,	-400.
{ 700.0,	-300.0,	.0,	.0);	{ 700.0,	-200.
{ 700.0,	-100.0,	.0,	.0);	{ 700.0,	.
{ 700.0,	100.0,	.0,	.0);	{ 700.0,	200.
{ 700.0,	300.0,	.0,	.0);	{ 700.0,	400.
{ 700.0,	500.0,	.0,	.0);	{ 700.0,	600.
{ 700.0,	700.0,	.0,	.0);	{ 700.0,	800.

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** DISCRETE CARTESIAN RECEPTORS **
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(	700.0,	900.0,	.0,	.0);	(	800.0,	-600.
(	800.0,	-500.0,	.0,	.0);	(	800.0,	-400.
(	800.0,	-300.0,	.0,	.0);	(	800.0,	-200.
(	800.0,	-100.0,	.0,	.0);	(	800.0,	.
(	800.0,	100.0,	.0,	.0);	(	800.0,	200.
(	800.0,	300.0,	.0,	.0);	(	800.0,	400.
(	800.0,	500.0,	.0,	.0);	(	800.0,	600.
(	800.0,	700.0,	.0,	.0);	(	800.0,	800.
(	900.0,	-300.0,	.0,	.0);	(	900.0,	-200.
(	900.0,	-100.0,	.0,	.0);	(	900.0,	.
(	900.0,	100.0,	.0,	.0);	(	900.0,	200.
(	900.0,	300.0,	.0,	.0);	(	900.0,	400.
(	900.0,	500.0,	.0,	.0);	(	900.0,	600.

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY
LESS THAN 1.0 METER OR 3*ZLB IN DISTANCE, OR WITHIN C

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)
1	.0	.0

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** AVERAGE SPEED FOR EACH WIND SPEED CA
(METERS/SEC)

1.54, 3.09, 3.95, 5.14, 8.2

*** WIND PROFILE EXPONENTS **

STABILITY CATEGORY	WIND SPEED CATEGORY			
	1	2	3	4
A	.70000E-01	.70000E-01	.70000E-01	.70000
B	.70000E-01	.70000E-01	.70000E-01	.7000
C	.10000E+00	.10000E+00	.10000E+00	.1000
D	.15000E+00	.15000E+00	.15000E+00	.1500
E	.35000E+00	.35000E+00	.35000E+00	.3500
F	.55000E+00	.55000E+00	.55000E+00	.5500

*** VERTICAL POTENTIAL TEMPERATURE GRA
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY			
	1	2	3	4
A	.00000E+00	.00000E+00	.00000E+00	.0000
B	.00000E+00	.00000E+00	.00000E+00	.0000
C	.00000E+00	.00000E+00	.00000E+00	.0000
D	.00000E+00	.00000E+00	.00000E+00	.0000
E	.20000E-01	.20000E-01	.20000E-01	.2000
F	.35000E-01	.35000E-01	.35000E-01	.3500

*** AVERAGE AMBIENT AIR TEMPERATURE (KEL

STABILITY CATEGORY A	STABILITY CATEGORY B	STABILITY CATEGORY C	STABILITY CATEGORY D	C
ANNUAL	280.0000	280.0000	280.0000	280.0000

** ISCLT3 - VERSION 95250 *** *** Fort Wayne Reclamation Site, 30 ft stack

** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** AVERAGE MIXING LAYER HEIGHT (METERS) **

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4
STABILITY CATEGORY A	440.0000	440.0000	440.0000	440.0000
STABILITY CATEGORY B	440.0000	440.0000	440.0000	440.0000
STABILITY CATEGORY C	440.0000	440.0000	440.0000	440.0000
STABILITY CATEGORY D	440.0000	440.0000	440.0000	440.0000
STABILITY CATEGORY E	440.0000	440.0000	440.0000	440.0000
STABILITY CATEGORY F	440.0000	440.0000	440.0000	440.0000

** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

** MODELING OPTIONS USED: CONC RURAL FLAT

DEFAULT

*** FREQUENCY OF OCCURRENCE OF WIND SPEED, DIRECTION AND STABILITY *

FILE: METFIL.STR

SURFACE STATION NO.: 14827

NAME: SURFNAME

YEAR: 1985

FORMAT • FREE

FORMAT: FREE
UPPER AIR STATION NO.

NO.
NAME

NAME

GRADE

ANNUAL: STABILITY CATEGORY A

ANNUAL: STABILITY CATEGORY B

* * ISCLT3 - VERSION 95250 *** *** Fort Wayne Reclamation Site, 30 ft stack

, * MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** FREQUENCY OF OCCURRENCE OF WIND SPEED, DIRECTION AND STABILITY *

FILE: METFIL.STR

FORMAT: FREE

SURFACE STATION NO.: 14827

UPPER AIR STATION NO.

NAME: SURFNAME

NAME

YEAR: 1985

YEAR

ANNUAL: STABILITY CATEGORY C

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (1.540 M/S)	WIND SPEED CATEGORY 2 (3.090 M/S)	WIND SPEED CATEGORY 3 (3.950 M/S)	WIND SPEED CATEGORY 4 (5.140 M/S)	WIND SPEED CATEGORY 5 (8.230 M/S)	W C
.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
112.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
135.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
157.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
202.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
225.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
247.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
270.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
292.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000

ANNUAL: STABILITY CATEGORY D

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (1.540 M/S)	WIND SPEED CATEGORY 2 (3.090 M/S)	WIND SPEED CATEGORY 3 (3.950 M/S)	WIND SPEED CATEGORY 4 (5.140 M/S)	WIND SPEED CATEGORY 5 (8.230 M/S)	W C
.000	.00067300	.00807100	.01059300	.00588500	.00000000	.00000000
22.500	.00056000	.00739800	.00420300	.00218600	.00000000	.00000000
45.000	.00056000	.00504400	.00689400	.00353100	.00000000	.00067300
67.500	.00056000	.00739800	.01193800	.00655700	.00100900	
90.000	.00201800	.01412300	.02135300	.01227400	.00252200	
112.500	.00168100	.00739800	.00723000	.00151300	.00000000	
135.000	.00302600	.00874300	.00588500	.00151300	.00000000	
157.500	.00302600	.01008800	.00674200	.00151300	.00000000	
180.000	.00403500	.01345100	.01462800	.00689400	.00050400	
202.500	.00269000	.01244200	.01368600	.00790200	.00084100	
225.000	.00336300	.01513200	.02377400	.01731800	.00302600	
247.500	.00201800	.01042400	.01704900	.01395500	.00336300	
270.000	.00168100	.01412300	.02209300	.02471600	.00605300	
292.500	.00067300	.00773400	.01025600	.00790200	.00067300	
315.000	.00067300	.00739800	.01025600	.00823900	.00067300	
337.500	.00067300	.00739800	.00958400	.00622100	.00033600	

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** FREQUENCY OF OCCURRENCE OF WIND SPEED, DIRECTION AND STABILITY *

FILE: METFIL.STR

FORMAT: FREE

SURFACE STATION NO.: 14827

UPPER AIR STATION NO.

NAME: SURFNAME

NAME

YEAR: 1985

YEAR

ANNUAL: STABILITY CATEGORY E

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (1.540 M/S)	WIND SPEED CATEGORY 2 (3.090 M/S)	WIND SPEED CATEGORY 3 (3.950 M/S)	WIND SPEED CATEGORY 4 (5.140 M/S)	WIND SPEED CATEGORY 5 (8.230 M/S)	W C
.000	.00029200	.00350200	.00459700	.00255400	.00000000	
22.500	.00024300	.00321000	.00182400	.00094900	.00000000	
45.000	.00024300	.00218900	.00299200	.00153200	.00000000	
67.500	.00024300	.00321000	.00518000	.00284600	.00029200	
90.000	.00087600	.00612900	.00926700	.00532600	.00043800	
112.500	.00073000	.00321000	.00313700	.00109400	.00000000	
135.000	.00131300	.00379400	.00255400	.00065700	.00000000	
157.500	.00131300	.00437800	.00292600	.00065700	.00000000	
180.000	.00175100	.00583700	.00634800	.00299200	.00021900	
202.500	.00116700	.00539900	.00593900	.00342900	.00036500	
225.000	.00145900	.00656700	.01031700	.00751500	.00131300	
247.500	.00087600	.00452400	.00739900	.00605600	.00145900	
270.000	.00073000	.00612900	.00958800	.01072600	.00262700	
292.500	.00029200	.00335600	.00445100	.00342900	.00029200	
315.000	.00029200	.00321000	.00445100	.00357500	.00029200	
337.500	.00029200	.00321000	.00415900	.00270000	.00014600	

ANNUAL: STABILITY CATEGORY F

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (1.540 M/S)	WIND SPEED CATEGORY 2 (3.090 M/S)	WIND SPEED CATEGORY 3 (3.950 M/S)	WIND SPEED CATEGORY 4 (5.140 M/S)	WIND SPEED CATEGORY 5 (8.230 M/S)	W C
.000	.00030500	.00365500	.00479700	.00266500	.00000000	
22.500	.00025400	.00335000	.00190300	.00099000	.00000000	
45.000	.00025400	.00228400	.00312200	.00159900	.00000000	
67.500	.00025400	.00335000	.00540600	.00296900	.00030500	
90.000	.00091400	.00639600	.00966900	.00555800	.00045700	
112.500	.00076100	.00335000	.00327400	.00114200	.00000000	
135.000	.00137000	.00395900	.00266500	.00068500	.00000000	
157.500	.00137000	.00456800	.00305300	.00068500	.00000000	
180.000	.00182700	.00609100	.00662400	.00312200	.00022800	
202.500	.00121800	.00563400	.00619800	.00357800	.00038100	
225.000	.00152300	.00685200	.01076600	.00784200	.00137000	
247.500	.00091400	.00472000	.00772000	.00631900	.00152300	
270.000	.00076100	.00639600	.01000400	.01119200	.00274100	
292.500	.00030500	.00350200	.00464400	.00357800	.00030500	
315.000	.00030500	.00335000	.00464400	.00373100	.00030500	
337.500	.00030500	.00335000	.00434000	.00281700	.00015200	

SUM OF FREQUENCIES, FTOTAL = .99381

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT

DEFAULT

*** THE ANNUAL AVERAGE CONCENTRATION VALUES FOR
INCLUDING SOURCE(S): 1

*** DISCRETE CARTESIAN RECEPTOR PCI

** CONC OF OTHER IN (MICROGRAMS/CUBIC

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
-241.00	116.00	.009316	-239.00
-239.00	-45.00	.019247	-239.00
-239.00	35.00	.018958	-239.00
-204.00	-86.00	.013180	-198.00
-169.00	-86.00	.010928	-155.00
-134.00	-86.00	.007475	-112.00
-89.00	-91.00	.003213	-70.00
-69.00	144.00	.006313	-68.00
-45.00	-95.00	.001210	-27.00
-1.00	-99.00	.001800	16.00
43.00	-103.00	.003187	59.00
70.00	-111.00	.005509	97.00
102.00	183.00	.020349	102.00
123.00	-133.00	.011355	142.00
149.00	-146.00	.012918	182.00
184.00	-145.00	.013191	202.00
209.00	-116.00	.013247	215.00
221.00	-31.00	.025667	222.00
227.00	7.00	.032258	223.00
242.00	91.00	.023422	251.00
260.00	181.00	.025157	262.00
264.00	232.00	.025917	-900.00
-900.00	-700.00	.002927	-900.00
-900.00	-500.00	.003943	-900.00
-900.00	-300.00	.005665	-900.00
-900.00	-100.00	.008457	-900.00
-900.00	100.00	.008129	-900.00
-900.00	300.00	.004771	-900.00
-900.00	500.00	.003555	-900.00
-900.00	700.00	.003315	-900.00
-900.00	900.00	.003028	-800.00
-800.00	-700.00	.002913	-800.00
-800.00	-500.00	.004093	-800.00
-800.00	-300.00	.005869	-800.00
-800.00	-100.00	.009370	-800.00
-800.00	100.00	.008947	-800.00
-800.00	300.00	.004738	-800.00
-800.00	500.00	.003946	-800.00
-800.00	700.00	.003616	-800.00
-800.00	900.00	.003270	-700.00

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT

DFAULT

*** THE ANNUAL AVERAGE CONCENTRATION VALUES FOR
INCLUDING SOURCE(S): 1

*** DISCRETE CARTESIAN RECEPTOR POI

** CONC OF OTHER IN (MICROGRAMS/CUBIC

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
-700.00	-700.00	.002837	-700.00
-700.00	-500.00	.004189	-700.00
-700.00	-300.00	.006057	-700.00
-700.00	-100.00	.010420	-700.00
-700.00	100.00	.009859	-700.00
-700.00	300.00	.004724	-700.00
-700.00	500.00	.004397	-700.00
-700.00	700.00	.003949	-700.00
-700.00	900.00	.003527	-700.00
-600.00	-700.00	.003036	-600.00
-600.00	-500.00	.004188	-600.00
-600.00	-300.00	.006458	-600.00
-600.00	-100.00	.011580	-600.00
-600.00	100.00	.010808	-600.00
-600.00	300.00	.005380	-600.00
-600.00	500.00	.004911	-600.00
-600.00	300.00	.005380	-600.00
-600.00	600.00	.004621	-600.00
-600.00	800.00	.004060	-600.00
-500.00	-800.00	.002900	-500.00
-500.00	-600.00	.003601	-500.00
-500.00	-400.00	.005218	-500.00
-500.00	-200.00	.008743	-500.00
-500.00	.00	.017213	-500.00
-500.00	200.00	.006715	-500.00
-500.00	400.00	.005846	-500.00
-500.00	200.00	.006715	-500.00
-500.00	200.00	.006715	-500.00
-500.00	400.00	.005846	-500.00
-500.00	600.00	.005127	-500.00
-500.00	800.00	.004408	-500.00
-400.00	-800.00	.003025	-400.00
-400.00	-600.00	.003835	-400.00
-400.00	-400.00	.004952	-400.00
-400.00	-200.00	.009255	-400.00
-400.00	.00	.020561	-400.00
-400.00	200.00	.007474	-400.00
-400.00	400.00	.006624	-400.00
-400.00	600.00	.005677	-400.00
-400.00	800.00	.004765	-400.00

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** THE ANNUAL AVERAGE CONCENTRATION VALUES FOR
INCLUDING SOURCE(S): 1

*** DISCRETE CARTESIAN RECEPTOR POI

** CONC OF OTHER IN (MICROGRAMS/CUBIC

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
-300.00	-800.00	.003316	-300.00
-300.00	-600.00	.004027	-300.00
-300.00	-400.00	.005368	-300.00
-300.00	-200.00	.009348	-300.00
-300.00	.00	.024357	-300.00
-300.00	200.00	.008639	-300.00
-300.00	400.00	.007534	-300.00
-300.00	600.00	.006251	-300.00
-300.00	800.00	.005392	-300.00
-200.00	-800.00	.004059	-200.00
-200.00	-600.00	.004703	-200.00
-200.00	-400.00	.005696	-200.00
-200.00	-200.00	.007920	-200.00
-200.00	.00	.023386	-200.00
-200.00	200.00	.009527	-200.00
-200.00	400.00	.008564	-200.00
-200.00	600.00	.007572	-200.00
-200.00	800.00	.006679	-200.00
-100.00	-800.00	.004824	-100.00
-100.00	-600.00	.006024	-100.00
-100.00	-400.00	.007492	-100.00
-100.00	-200.00	.007056	-100.00
-100.00	.00	.004122	-100.00
-100.00	200.00	.009661	-100.00
-100.00	400.00	.011791	-100.00
-100.00	600.00	.009842	-100.00
-100.00	800.00	.008017	-100.00
.00	-800.00	.005559	.00
.00	-600.00	.007343	.00
.00	-400.00	.010323	.00
.00	-200.00	.011686	.00
.00	-200.00	.011686	.00
.00	.00	.000000	.00
.00	200.00	.017497	.00
.00	400.00	.016600	.00
.00	600.00	.012147	.00
.00	800.00	.009317	.00
100.00	-800.00	.005428	100.00
100.00	-600.00	.007086	100.00
100.00	-400.00	.009733	100.00

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DEFAULT

*** THE ANNUAL AVERAGE CONCENTRATION VALUES FOR
INCLUDING SOURCE(S): 1

*** DISCRETE CARTESIAN RECEPTOR POI

** CONC OF OTHER IN (MICROGRAMS/CUBIC

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
100.00	-200.00	.011923	100.00
100.00	.00	.007042	100.00
100.00	200.00	.019802	100.00
100.00	400.00	.015498	100.00
100.00	600.00	.011588	100.00
100.00	800.00	.009006	100.00
200.00	-800.00	.005219	200.00
200.00	-600.00	.006699	200.00
200.00	-400.00	.009144	200.00
200.00	-200.00	.013223	200.00
200.00	.00	.031916	200.00
200.00	200.00	.030070	200.00
200.00	400.00	.015798	200.00
200.00	600.00	.010848	200.00
200.00	800.00	.008577	200.00
300.00	-800.00	.004950	300.00
300.00	-600.00	.006397	300.00
300.00	-400.00	.008718	300.00
300.00	-200.00	.011626	300.00
300.00	.00	.031605	300.00
300.00	200.00	.023039	300.00
300.00	400.00	.018028	300.00
300.00	600.00	.011207	300.00
300.00	800.00	.008063	300.00
400.00	-800.00	.004780	400.00
400.00	-600.00	.006156	400.00
400.00	-400.00	.006156	400.00
400.00	-200.00	.008112	400.00
400.00	.00	.009952	400.00
400.00	200.00	.026241	400.00
400.00	400.00	.017838	400.00
400.00	600.00	.018785	400.00
400.00	800.00	.012226	400.00
500.00	-800.00	.008431	500.00
500.00	-600.00	.004623	500.00
500.00	-400.00	.005829	500.00
500.00	-200.00	.007239	500.00
500.00	.00	.008877	500.00
500.00	200.00	.021792	500.00
		.014526	500.00

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE ANNUAL AVERAGE CONCENTRATION VALUES FOR
INCLUDING SOURCE(S): 1

*** DISCRETE CARTESIAN RECEPTOR POI

** CONC OF OTHER IN (MICROGRAMS/CUBIC

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
500.00	400.00	.015504	500.00
500.00	600.00	.012684	500.00
500.00	800.00	.008978	500.00
600.00	-800.00	.004424	600.00
600.00	-600.00	.005460	600.00
600.00	-400.00	.006470	600.00
600.00	-200.00	.009191	600.00
600.00	.00	.018475	600.00
600.00	200.00	.013327	600.00
600.00	400.00	.012965	600.00
600.00	600.00	.012726	600.00
600.00	800.00	.009268	600.00
700.00	-700.00	.004617	700.00
700.00	-500.00	.005398	700.00
700.00	-300.00	.006136	700.00
700.00	-100.00	.012475	700.00
700.00	100.00	.014116	700.00
700.00	300.00	.010481	700.00
700.00	500.00	.011119	700.00
700.00	700.00	.010780	700.00
700.00	900.00	.008193	800.00
800.00	-500.00	.004892	800.00
800.00	-300.00	.006101	800.00
800.00	-100.00	.011270	800.00
800.00	100.00	.012533	800.00
800.00	300.00	.009528	800.00
800.00	500.00	.009592	800.00
800.00	700.00	.009529	800.00
900.00	-300.00	.006089	900.00
900.00	-100.00	.010204	900.00
900.00	100.00	.011200	900.00
900.00	300.00	.008836	900.00
900.00	500.00	.008345	900.00

*** ISCLT3 - VERSION 95250 ***

*** Fort Wayne Reclamation Site, 30 ft stack

*** MODELING OPTIONS USED: CONC RURAL FLAT

DFAULT

*** Message Summary : ISCLT3 Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
\ Total of 0 Warning Message(s)
\ Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
*** NONE ***

*** ISCLT3 Finishes Successfully ***
